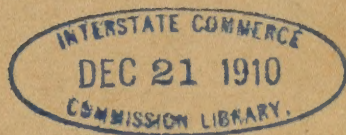


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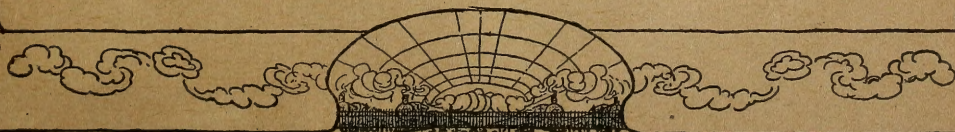
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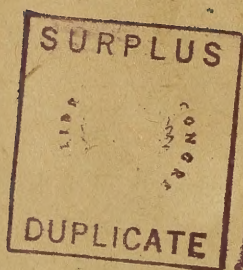
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1910





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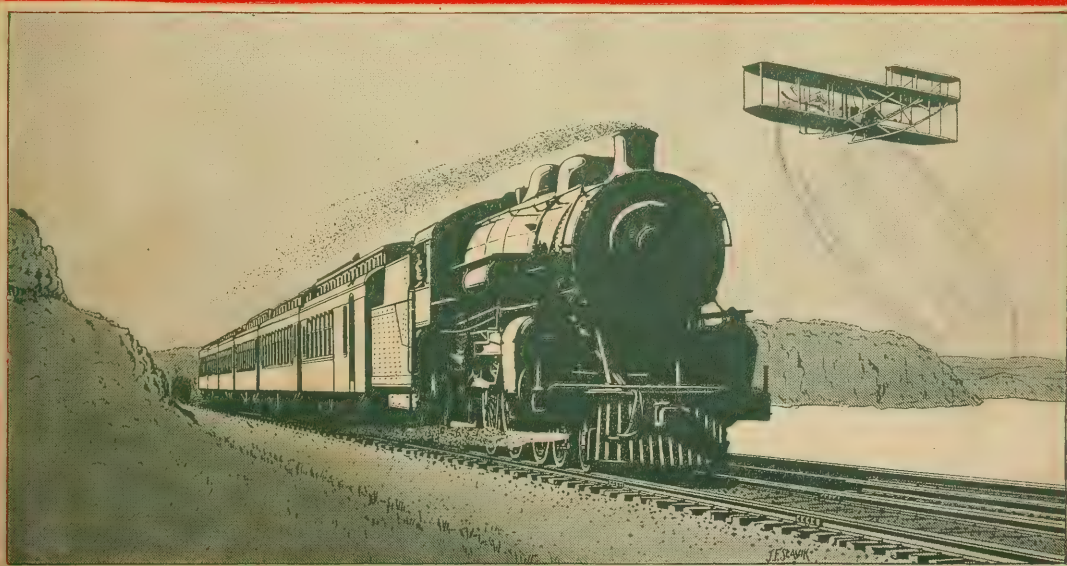
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JUNE

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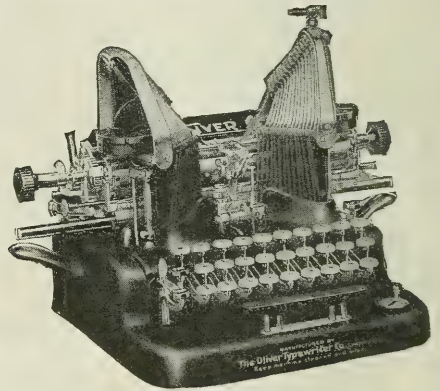
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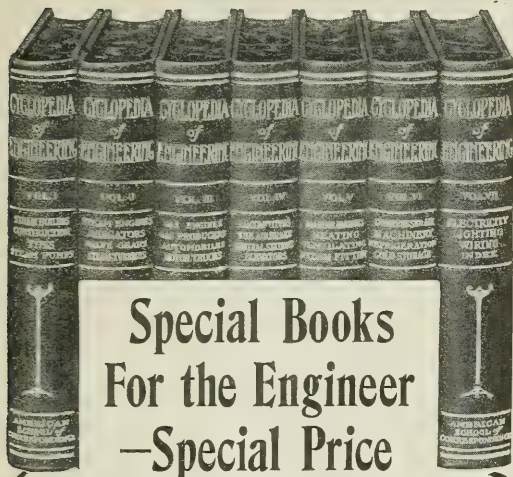
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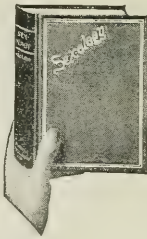
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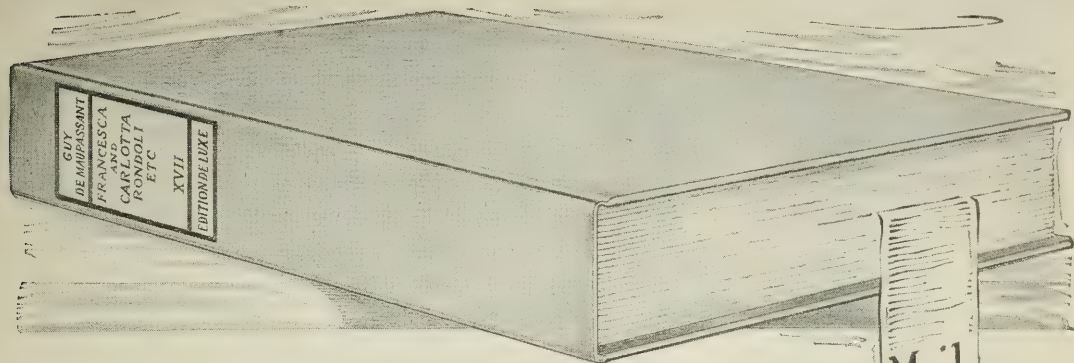
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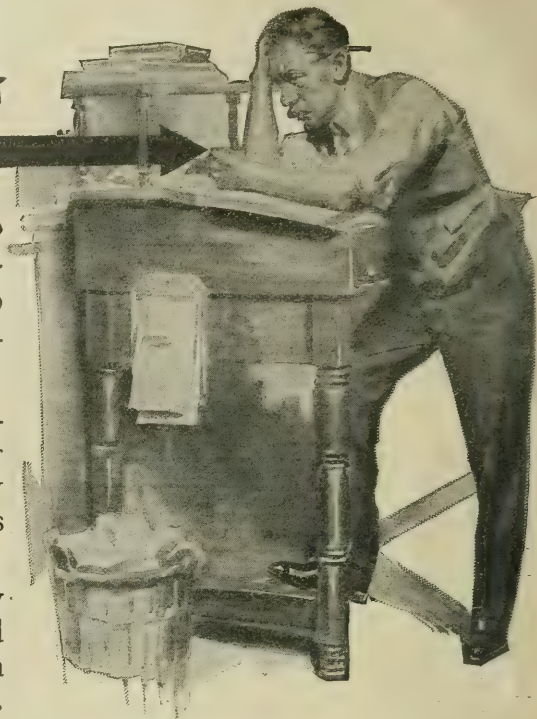
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THE RAILROAD MAN'S MAGAZINE

Vol. XII.

JUNE, 1910.

No. 1.

Ten Thousand Miles by Rail.

BY GILSON WILLETS,

Special Traveling Correspondent of "The Railroad Man's Magazine."

BOYS, here is the first article in the new series by Gilson Willets, who is now on his fourth annual tour over the railroads of the country for THE RAILROAD MAN'S MAGAZINE. You know what he has given us in the past. We guarantee that this new crop will not be a failure.

The first of the series comes from Dixie—the sunny Southland—where the life of the railroad man is just as strenuous as in the northern climes. There is, of course, a common similarity in all railroad yarns, but there is no railroad yarn without its gripping, blood-tingling quality.

These from the Southland have, besides, the real Dixie-land flavor.

No. 1.—THE DRAMAS OF DIXIE LAND.

**The Missing \$43.70—Saving the Commander—"Red" Bourbon's Mistake—An Ancient Ticket—Bob Weaver's Little Protégé—
The Face in the Window.**



HE lone night-operator at the little Norfolk and Western station at Elkton, Virginia, opened his cash-drawer, counted the money, and entered the sum in a cash-book. The amount that he recorded was \$43.70.

He was hardly more than a boy.

He looked at the clock. "Nearly eight," he murmured. "Nell should be here now."

Then he took a letter from his pocket, and read: "Unless you pay this bill by

January 19, we will garnishee your wages, now in the hands of the Norfolk and Western."

The operator looked at his calendar. The date was January 18, 1910.

Just then the station door opened, and in came the girl.

"So glad you've dropped in, Nell," said the operator. "I've something for you." On the girl's finger he slipped a silver ring, representing a snake with an imitation emerald for an eye.

The girl said: "Is this an engagement-ring, Harry? A real one?"

"No. I will get you a real one some day in the near future."

"How soon?"

"Oh, pretty soon."

The girl departed, and the operator lighted a cigarette and puffed nervously. Ten o'clock came, and eleven and twelve and one. His key had ceased to click. There would be no more trains till 2.20, when No. 83, freight, would pass. The operator settled down to read "The Railroad Robber's Revenge."

Here ends the first act of this particular melodrama of the Dixie rails. Now for the second act.

That same morning, at 2.30, the men in the despatcher's office in the headquarters building of the Norfolk and Western at Roanoke were working and yawning at the same time, bored by the eternal round of the usual.

Of a sudden, however, the unusual happened—and the chief operator let loose a laugh that went through the open window, and was heard by the watchman up in the "crow's-nest," or signal-tower, that was hung up on the foot-bridge over the network of tracks that ran by the headquarters building.

"Listen to this," cried the chief operator to the other boys. "It's from Dave Chester, conductor of No. 83. He wires: 'Train delayed; untying operator.'"

The boys laughed uproariously.

"What station?" one asked.

"Elkton."

This ends the second act. Now for the third.

The Retired Officer Talks.

It was my first morning in Roanoke—January 19, 1910. On my arrival the night before, it took only five minutes to discover that every third man in Roanoke was a railroader; that the Norfolk and Western had a monthly pay-roll of over \$200,000; that the N. and W. shops extended for two miles down the tracks; that the N. and W. owned about everything in sight, including the hotel in which I was staying; that the hotel was filled with officers of the N. and W., and with traveling men who wanted to sell things to the N. and W.; and that railroad stories would begin coming my way the moment I turned myself loose.

At breakfast that first morning, in the hotel dining-room, I found myself at the table with General Passenger Agent Bevell, two officers of the supply department, two travelers who wanted to sell things to the supply department, and a retired N. and W. officer.

When all had left the table, save the retired officer and myself, he suddenly said:

"Did you happen to be awake about 2.30 last night, suh?"

"No. Why?"

"Well, if you had, suh, you would have heard a mighty powerful heap of laughter going on across the way in the despatcher's office. You see, they received a despatch from a freight-train conductor, Dave Chester, from down at Elkton on the Shenandoah division, saying: 'Train delayed; untying operator.'"

"What's the joke?" I asked.

"Twas no Joke.

"'Tain't no joke, suh. That conductor wasn't jokin'. The operator, suh, was really tied, and he really had to be untied. For about ten minutes the whole thing was a mighty powerful, deep, dark mystery—to the despatchers across the street here.

"Then, in came details. No. 83, freight, it seems, was crawlin' up to Elkton station on time at 2.20 this morning. The engineer was expecting to go past the station without stopping, as usual, for there is seldom anything to stop for at that little place. But what did the engineer find? He found the semaphore set against him. So he stopped, then he and Conductor Chester went into the station to see what was up."

Here the retired railroader stopped to pour a lot of maple-sugar over his cornpone, and in impatience I asked:

"Well, what did they find?"

"In the station, suh, they found the operator tied with rope to the semaphore-levers and a mail-bag over his head, suh."

"Robbers?"

"Yes, suh. Two of 'em, with guns. They got the drop on the operator about one o'clock in the morning, shoved the mail-bag over his head, and tied him to the semaphore-levers. Then they broke open the cash-drawer, rifled it, and got

away. The operator lay there tied like that for an hour and a half. Conductor Chester untied him, and then resumed his run. And there you are, suh."

"Did the robbers get much money?"

"Forty-three dollars and seventy cents, suh. But Joe Funk is already on the job. He'll get those robbers in no time."

"Who's Joe Funk? A detective."

"Yes. One of Bill Baldwin's lieutenants. You've heard of Bill Baldwin, haven't you?"

Joe Funk on the Job.

"Yes. He's the Norfolk and Western's chief sleuth, and one of the most famous railroad detectives in the South."

"Right you are, suh. And his lieutenant, Joe Funk, is not a man to fall down on a little job like this. You may look for Joe Funk nabbin' those Elkton Station robbers in about twelve hours from now. I tell you that. Mornin', suh."

So ended the third act. Now for the fourth.

Joe Funk appeared suddenly in Elkton. To several and sundry of the village he put this question: "Did you see any strangers hereabouts last night?"

The answer was invariably a negative.

Joe Funk visited the station, looked sharply at the operator when the operator was not looking at Funk. And Funk made this mental note: "Operator's eyes close together. Can keep a secret."

Then he looked carefully around the station, finally making these further mental notes: "Operator a cigarette fiend, and reads dime-novels such as 'The Railroad Robber's Revenge.' And there's a girl named Nell."

Ten days passed, and not a sign of Joe Funk in Elkton in all that time. The operator continued on his job. If any clue to the identity of the robbers had

been found, it had not been made known to any one.

Suddenly, however, on the morning of February 1, 1910, Joe Funk loomed up at the Elkton Station and conversed with the operator something like this:

At the Bottom.

"You've been buying things on credit—trinkets and such things—at Martinsville and Rocky Mount. Your creditors threaten to garnishee your wages. You owe a lot of money. Now, my boy, if you should pay forty-three dollars and seventy cents on account, it would ease you up a whole lot, wouldn't it?"

The young operator looked at the detective a moment with an inscrutable smile, then said:

"Yes, it would."

"Well, then, son, pay me that forty-three-seventy and get eased up."

This ends the fourth act. Now for the fifth and last.



"IS THIS AN ENGAGEMENT RING, 'HARRY?'"



"DID YOU SEE A MAN DROP A LETTER IN YOUR CAR, YESTERDAY?"

That same night, at dinner, I sat in the hotel dining-room at Roanoke, when the retired N. and W. officer joined me, saying:

"Joe Funk is back, suh."

"Back from where?" I asked. "Oh," I added, "that Elkton-operator-tied-to-semaphore case?"

"Yes, suh. It's a closed incident now. You see, there were no robbers. The operator put the mail-bag over his head with his own hands and tied himself to the semaphore-levers. And Joe is back with the operator's written confession and the forty-three-seventy in cash. And there are four reasons for that operator's fall, suh—just four. They are cigarettes, dime-novels, debts, and girl."

I should add here, parenthetically, that Roanoke was my fifth stop on my

fourth trip across and around the continent as correspondent for THE RAILROAD MAN'S MAGAZINE. My present ten-thousand-mile-story-gathering tour of the railroads began with a southward flight of 1,300 miles to Philadelphia, Baltimore, and Washington, and thence through Dixie-land. That flight included thirteen

stops. At these stopping-places the railroad boys kindly contributed to my notebooks the dramas, melodramas, and comedy-dramas here related. For the sake of "law and order," I will relate these yarns in the geographical sequence in which they were told to me in my progress from New York to New Orleans.

At ten o'clock on a very hot morning in July, 1909, a taxicab pulled up in front of the Broad Street Station, Philadelphia, at the entrance where the sign read: "General Offices, Pennsylvania Railroad."

The passenger who alighted and, with a wave of his hand, returned the "Good morning" of the doorman, was a commander of men, although he didn't look his sixty years.

He carried two yards of height straight as a signal-post, and two hundred weight of bone and flesh with the grace of an athlete. In the corridor, while waiting for the elevator, he took off his straw hat and with it fanned himself. He had plenty of hair which, like his square-trimmed beard, was tinged with gray.

At the first floor he left the elevator and entered an office the door of which was lettered:

PRESIDENT.

Now, the commander described was too fine a man to perish by an assassin's hand, if it could be helped. At least, so thought the young man who now entered the president's office and stepped up to the great man's desk to say:

"Mr. McCrea, here's a letter needing the immediate attention of a detective."

"Good morning, Derousse," returned the commander. "What's this? Why do you look so excited?"

Oswald Derousse was chief clerk to the president.

"It's addressed to you personally, sir," Derousse said; "and the writer swears he will blow the president of the Pennsylvania Railroad into kingdom come unless \$45,000 is forthcoming as ransom for your safety. He says he'll even go so far as to blow up Broad Street Station in order to get you."

"Anonymous?" snapped Mr. McCrea.

The Cool McCrea.

"Yes, sir. The writer says that, by way of answer, we must insert a personal in the *Richmond Times-Despatch*, using a masonic sign for the purpose."

Mr. McCrea took the letter and read:

This is a declaration of war. My life is openly staked on the result. I shall use dynamite.

Without reading further, he handed it to Derousse, saying:

"What postmark?"

"Burkeville, Virginia."

"On the Norfolk and Western?"

"Yes, sir."

"All right." He gave two short, incisive orders.

A few hours later, the gateman at track nine, at the Broad Street Station, closed the gate as the train on that track began pulling out for the South. Just then a small man with a big head, a bronzed face, and eyes like a hawk rushed up to the gateman and showed a badge. The gateman immediately reopened the gate, and the small man dashed through it, ran down the platform, and leaped aboard the rear car of the outgoing south-bound train.

"Bill," said the gateman to the attendant at the adjoining gate, "if that man was not Captain Bill Baldwin, it was his double."

Captain Bill Baldwin, if the man who caught that south-bound train were indeed he, was small, as I have said. He had a big name as a railroad detective, and possessed a trigger finger much disliked by bad men in the South.

He was the head of the Baldwin De-

tective Agency, with headquarters at Roanoke, Virginia; and was, moreover, the chief of the secret service of the Norfolk and Western Railway.

Closing In.

I repeat, if the small man who flew through the gate was indeed Bill Baldwin, then it was a fortuitous circumstance that he happened to be in Philadelphia that day when the threatening letter reached President McCrea's office.

At Richmond, that same day, Post-office Inspector Bill Calvert received a telegram which caused him to secure a copy of the *Richmond Times-Despatch* the following morning and mark a certain personal with a blue pencil. The personal contained a sign of a secret order.

At Burkeville, Virginia, two days later, two small men interviewed a certain railway mail-clerk.

"Did you see a man drop a letter in your car yesterday?" the mail-clerk was asked.

"Yep."

"You knew him?"

"You bet!" He named a man high up in Burkeville.

"What!" exclaimed one of the interviewers. "Not that man! You are sure?"

"Positive."

Twelve hours later, one of the two small men said to the other:

"He's crazy."

"Not at all," said the other. "He's perfectly sane. He thinks he has a grievance against the Pennsy. His father owned some stock in a branch railroad down here which was reorganized through Pennsy influence. The man who mailed that letter fancies his father lost \$45,000 as the result of the reorganization. No, it is not insanity. It's spite."

The Meeting.

A few days later the man high up in Burkeville received a letter from Derousse, chief clerk to the president of the Pennsy, saying that his superior acceded to the demand for \$150 cash, and transportation to Philadelphia.

Next day, Derousse received a letter

dated at Philadelphia in which the writer said he would meet Derousse at noon at the Broad Street Station, "ready for business." At noon, accordingly, a man stepped up to Derousse and said:

"I'm the man you expect. Are you ready for me?"

"Yes," promptly returned Derousse. "Come right over to the bank."

The chief clerk led the stranger to the Third National Bank, where he secured a certified check for \$30,000 and proffered it to the stranger, saying that the railroad felt that \$45,000 was exorbitant, but that it would stand for \$30,000.

"No, I won't take that," protested the stranger. "You hold on to that money a while, however, till I make up my mind whether to let you off so easy."

But just then a pair of handcuffs were clamped on the stranger—by a post-office inspector, who said:

"Your honor is under arrest for sending threatening letters through the mail."

Derousse hastened to the office of the commander in chief of the P. R. R., and said:

"Mr. McCrea, you are safe from dynamite for some time to come."

"Who was the man?" the president asked.

"The mayor of Burkeville, Virginia, sir."

Detective Bill Baldwin and Post-Office Inspector Bill Calvert adjourned to the nearest drug-store and ordered two ice-cream sodas.

A Certain Pay-Train.

A Baltimore and Ohio train, on a certain night in September, 1864, pulled out of Washington, bound for some place west of Harper's Ferry, where a number of Federal regiments were mobilized. The train was carrying money to those troops. It was, indeed, a government pay-train, consisting of the pay-car and one coach drawn by the locomotive "Henry Clay." On board was a train-crew of seven men, including Breen, the engineer, also four government officers. They were armed to the teeth.

Toward midnight, with right-of-way over everything, the train was flying through one of the longest tunnels in the Alleghanies some forty or fifty miles

west of Harper's Ferry when, suddenly, Engineer Breen desperately signaled: "Down brakes!" The brakemen now nearly tore their arms out by the roots in twisting the brake-wheels.

The moment the train stopped every man aboard jumped off, each carrying either a Winchester or a revolver. Up head, Engineer Breen was seen talking to a young girl who carried a lantern and was gesticulating wildly.

"Come here quick, you fellows," shouted Breen, "and hear what this girl is telling me! There is a plot afoot to wreck us! The switch at the signal-shack at the other end of this tunnel has been set to derail us, and all of us not killed in the mix-up were to be murdered like dogs. The plan of the wreckers was to get the money we're carrying!"

The girl then rapidly outlined her terrible experiences of the night.

The Missing Operator.

She said she was Jennie Garth, of Harper's Ferry, a sister of Harry Garth, the signal and switch tender, who lived in the shack at the west end of the tunnel. She had come down by rail that day from Harper's Ferry to see her brother. Arriving at the shack, she found that he was not at his post.

Night fell, and Jennie waited for her brother. Ten o'clock came, and—still no Harry.

Meantime, Jennie resolved to flag the first train that came along and report her brother's absence, feeling certain that some ill-fortune had befallen him.

Of a sudden, she heard quick but stealthy footsteps outside, and a moment later two men, one old and the other young, bounded into the shack and came to a standstill, as if surprised.

"He's not here," the old man said, looking around the only room. He then stepped toward Jennie, a knife gleaming in his hand.

Jennie, frozen with fear, could not utter a word.

"No, dad," interposed the young man. "Remember your promise—no violence here. Leave the girl to me."

With that, the young fellow, who carried a coil of rope, seized Jennie and dragged her to the corner where the bed

stood. It was a four-poster, and to one of the posts he lashed the girl. When the old man went to the door to peer out, the young man whispered:

He Confides.

"Keep still, gal. Don't be frightened. Keep your mouth shut. My

fright that she could hardly keep from sinking down, thus drawing the ropes cruelly tight about her. For half an hour or more she steeled herself against attacks of faintness, and then—the young man reappeared and blew out the lamp.

"I doubled on the old man," he panted. "He's after me, so I must hurry. So must you, gal. My father has spiked the



"HE'S GOING TO WRECK THE PAY-TRAIN, AND KILL THE CREW,"

father has gone clean crazy. He's going to wreck the pay-train and kill the crew, and steal the money. But I'm going to stop him."

"Come along," ordered the old man, turning to his son.

The son waited till the old man stepped out, then whispered to Jennie:

"Your brother is safe, gal. Don't worry. He fell—up in the hills—and broke his knee-cap. I knew he wasn't here, but I wouldn't tell my old man."

With that the young man left the shack, following his father out into the night, and leaving Jennie so paralyzed with

switch, and I can't reset it. The pay-train is coming. You take a lantern, light it after you get far inside the tunnel, and stop that train.

"Meantime, I'll let the old man get on my track again, and while he is running after me you'll have a good chance to save the train."

To Save the Train.

He loosened the rope and Jennie was free.

Out of the door dashed the young man. Jennie, realizing that the lives of the men

on the pay-train were in her hands, summoned courage to obey the instructions given by the young stranger.

Carrying an unlighted lantern, she ran to the tunnel. When she had stumbled over the ties for a quarter of a mile she lighted the lantern—and waited.

Presently the headlight of a locomotive appeared at the far end. Jennie raised her lantern and waved it frantically, and, as I have told, the train stopped.

But even then, with the pay-train saved, the drama of the night was not ended.

Shots Are Fired.

While the train still stood in the tunnel, and just as Jennie finished telling her story to Engineer Breen and the trainmen, and while the government men were forming plans to capture the old rogue, a wild shout was heard in the tunnel, and into the rays of the headlight dashed the young man. Next came a deafening report, and he fell, never to rise again. His father had killed him.

Then, with another blood-curdling shriek, the old maniac rushed into view, with his Winchester leveled at Jennie. At the same time, however, one of the train-crew fired, and down went the homicide. The man who fired the shot that saved Jennie Garth's life was Engineer Breen.

The crew took Jennie aboard, proceeded cautiously to the switch, unspiked it, left a brakeman in charge at the shack, and then went on to their destination.

The next day the pay-train carried Jennie back to Harper's Ferry. She was rewarded by both the B. and O. and the government with sums of money.

The old villain in the drama was a notorious character who, with his son, had lived for years in an almost inaccessible part of the Alleghanies. "Red" Bourbon he was called. His son's name was Jim. Poor Jim Bourbon!

"Old Man" Whitney, sometimes called "Chi" Whitney, an old Baltimore and Ohio railroader of Baltimore, gave me these facts.

The heroine of the story, Jennie Garth, was then only seventeen years of age. "Old Man" Whitney said that when he last heard of her, in 1904, she was still living in Harper's Ferry, a spinster.

Train No. 4, from Pittsburgh, pulled into the station at Washington one morning in November, 1908. The conductor, as he walked up the platform, chanced to meet a fellow-wielder of the ticket-punch, to whom he said:

"Jim, how long is a Penn ticket good for a ride?"

"Till midnight on date of issue, or as otherwise specified in contract printed on said ticket. At the most, thirty days," replied Jim.

"Then a ticket issued in the year of our Lord, 1869, wouldn't carry a passenger very far to-day, would it?"

"Not on your life."

"Well, look here." He handed Jim a ticket.

"Why," exclaimed Jim, "this ticket is thirty-nine years old!"

"Yes," assented the conductor of No. 4, "I've figured that this ticket is about 14,235 days overdue."

"Well, what of it? You didn't carry a passenger on that worthless paper, did you?"

"That's just what I did, Jim. The Penn has smashed its own rule, regarding the time limit on tickets, to smithereens."

At the Broad Street Station, Philadelphia, at nine-fifty-five in the evening, the head boss of the night force in the telegraph department of the Pennsylvania Railroad received a message from Conductor Malloy, of No. 4. The message that was put on the wire at Johnston when Malloy's train, from Pittsburgh to Washington, stopped there, read:

Passenger has tendered for transportation ticket issued in 1869 by Louisville and Lexington Railroad reading: "Good for one first-class passage from Cincinnati, O., to Washington, D. C." Ticket so worn with age that had much difficulty in deciphering name of railroad. What shall I do? Answer to Johnston. Meanwhile will let the passenger ride.

A Puzzling Matter.

The boss telegrapher scratched his head. This plainly was a matter for the passenger department. But the heads of that department never work at night. What should he do? Finally, he went to the telephone and called up General Passenger Agent Boyd at his house, and

to him read the conductor's odd message.

"Why, that ticket is thirty-nine years of age!" exclaimed Mr. Boyd. "However, leave it to me. I'll let you know what to do. Good-by."

Mr. Boyd called up Passenger Traffic Manager Wood and explained all about the thirty-nine-year-old ticket.

"But a railroad ticket of that sort is good only up to midnight on date of issue," said the P. T. M.

"Yes, rules is rules," quoth the G. P. A.

"All the same, it ought to go into the museum," said the P. T. M.

"Yes, it should be put in a real nice frame," replied the G. P. A.

"Oh, well, leave it to me," finally said the P. T. M. "I'll let the telegraph man know."

He telephoned Colonel Barksdale, head of the publicity department.

"Leave it to me," said Barksdale to the P. T. M. "I'll let the telegraph man know."

Meantime No. 4, in charge of Conductor Malloy, was flying eastward. The train had left Pittsburgh at 8.33, and was pulling into Johnston at 10.51. Malloy rushed to the telegraph man, saying:

"Got a special message for me from Broad Street?"

"Nope."

"Good Heavens!" cried Malloy. "And that old man riding free! All aboard!" he shouted; and then, in a lower tone: "Wonder why they don't answer? I've copped the ticket, anyway. It's the whole class. Don't dare punch it. I just can't let go of that ticket, yet I dare not let that passenger go on riding without orders. All aboard!"

"Here!" called the telegraph man. "Here's your answer."

Malloy simply devoured that message with his eyes. All it said was:

Honor the ticket.

BARKSDALE.

"Barksdale!" said Malloy to one of



THIS WAS A MATTER FOR THE PASSENGER DEPARTMENT.

the brakemen as the train sped on. "What's *he* got to do with it? I know. He'll get the story in the newspapers. Barksdale certainly is on his job night and day."

Believed in Education.

Bob Weaver, engineer of the Southern Railway, with a run in the "Land of the Sky," where the road drops south from Lynchburg, Virginia, and then up and over the stupendous Black Mountains and past Asheville, North Carolina, had a hobby.

It was education. He believed education to be a panacea for all the ills of all the "poor whites," mountaineers, hillbillies, moonshiners, and blockade-runners on his division.

Here is an example of how he would give his hobby exercise:

One day in the spring of 1905 he was running his train, the Southern Express, through a notch in the mountains north of Asheville, where the road-bed winds along the side of the mountain a thousand feet above the valley.

He found a signal set against him, and was obliged to halt. He had to stop there fully two hours, during which time a number of the mountaineers and their families came down to the track to stare at the passengers seated at the windows. Among these was a young girl to whom Bob Weaver said:

"What's your name, gal?"

"Nan Gibson."

"How old?"

"Fourteen."

"Go to school?"

"No, sir. Ain't no school yereabouts to go to."

"Who's the kids with you?"

"Them's mah little brothers and sisters."

"Father living?"

"Yes."

"Mother?"

"No. She's daid."

"And so you have to stay home and mother the family—is that it?"

"Yes, sir."

"Well, by hooky! It's wrong; all wrong. You should have an education. You'd know then how to take care of these kids all the better. You'd do your work easier-like. My name is Bob Weaver. But if I'd been named Andrew Carnegie, I'd turn you into an island, Nan, entirely surrounded with books. Good-by, Nan."

After that, every time Bob Weaver ran down through that notch way up in the air, with the mountain towering on one side and a sheer precipice of a thousand feet on the other, he would think of Nan Gibson with protesting thoughts against the fate that left her without an education.

Fine Place for a Wreck.

"And wouldn't this spot be a place for a wreck!" Bob Weaver said one day to his fireman, as the train ran down through the notch.

"Guess yes," answered the fireman.

Then came a day in April, 1905—some weeks after the meeting of Bob Weaver and Nan Gibson—when the Southern Express, at 11.30 in the morning, was thundering and grinding down the mountain, and Bob Weaver gave a yell of alarm and jammed on the emergency.

On the track ahead stood a girl, waving something red.

"It's that gal Nan Gibson," shouted Weaver, as his train came to a standstill. "And, by Heaven, look there ahead!" he continued. "A rock slide! A billion tons of rock and earth on the right-of-way."

Comprehending now the full significance of the presence of Nan and the red thing she had waved, and which proved to be her petticoat, Bob Weaver sprang

from his cab and ran to the girl, followed by his fireman and the train-crew and every man, woman, and child from the coaches and Pullmans.

How It Happened.

"You're an angel from heaven!" cried Weaver, seizing the girl and lifting her in his arms, and holding her up so all the crew and passengers could take a look at her.

"But for this gal," he shouted, "we'd probably all be lyin' a thousand feet below here, in the stream through the gorge, without further use for the Southern Railway."

The moment Weaver placed the girl on the ground, the women passengers swarmed around her. They hugged her and kissed her, and wept on her neck, and thanked her and blessed her.

"How'd it happen, Nan?" Bob Weaver asked.

"Ah was peelin' the 'tatoes fo' dinner," she said, "when Ah heard a awful noise like the mountain was crackin' open. Ah looked out of the do' and saw part of the mountain—rocks, trees, and all—slidin' down onto the railroad track; and I says to myself: 'An' it's train-time, too.' We ain't got no clock or watch into our house, but Ah knew by the sun that it was near time for this yere train. So Ah runs down yere and takes off mah skirt and flags you. That's all."

The passengers had taken up a collection. They handed Nan a hatful of money.

"The money ain't no good to her without education," murmured Bob Weaver. Then he took Nan aside and said to her:

"Listen to your Uncle Bob, gal. You remember what I tell you. This contribution is merely from the passengers as an expression of gratitude for savin' us-all from a wreck. But pretty soon a man from the Southern Railway will come down here to see you—'cause my road ain't no slouch to forget to reward an act like yours."

Gave It to Dad.

"Now, when that man from my road comes here, Nan, you tell him that what you want is an education. Will you re-

member, gal? Get that word on the brain—education. And leave your Uncle Bob to do the rest.”

The wrecking outfit came and cleared away the “billion” tons of rock and trees and earth, and rebuilt the track.

Nan Gibson gave the hatful of money to her father, who promptly went down

“Nan, want a education?” the father asked, turning to his daughter.

“Education—that’s the word,” responded Nan.

At the opening of the fall term of 1905, at the Normal Collegiate Institute, at Asheville, North Carolina, the girls poured in from all parts of the South,



“EDUCATION—THAT’S THE WORD,”
RESPONDED NAN.

into the valley and bought a little cottage, and took Nan and the kids down there—and everybody was happy. Nan pronounced the word “education” every day—but still day after day passed, and no one from the Southern Railway put in an appearance.

In June, however—about five weeks after the greatest day in Nan’s life—the “man from the Southern Railway” showed up.

He was a kind, soft-voiced man, and to Nan’s father he said:

“My road wishes to reward your daughter for averting what might have been a terrible disaster—up there in the notch. We want to make the reward not only substantial, but permanent. Our engineer, Robert Weaver, in charge of the train which your daughter saved, has suggested to the company that we pay for your daughter’s education at a seminary.”

and one of them signed this name on the register:

“Nana Gibson.”

The Southern Railway paid the bills.

And every time Bob Weaver drove the Southern Express through Asheville he would chuckle.

His Lonesome Night.

On the train that carried me from Roanoke to Natural Bridge I repeated the story of the operator who tied himself to the semaphore-rods to a young man to whom I was introduced by Conductor Kirby. His name is Robert Hanson. He is an itinerant railroad telegrapher; and my story brought out this one from my new friend. He said it would “go mine one better.”

“The hero,” said Hanson, “was a friend of mine, and I remember the details as if it were yesterday.

"At eleven o'clock on the night of December 31, 1907, Ed Hutchison, agent-operator for the B. and O. at Clarington, West Virginia, some twenty miles south of Wheeling, put some more coal in the stove, raked the fire down, and then watched the stove grow red in the face. A biting wind was sweeping down



"HE SAW A FACE PRESSED TO THE PANES."

from the hill, and plenty of fuel was needed to keep the station warm. Ed Hutchison then responded to the click of his key for a while, wrote out some reports, then paced up and down the office, stopping now and then to peer out into the night.

"He was lonesome. It was New Year's Eve, and he knew that many of the young folks of the town were assembling to watch the old year out and the new year in—a social occasion from which he was barred by duty. As he once again paced toward the window he saw a face pressed to the panes. It was a man's face, and it was bearded. Suddenly it vanished!

"He rushed to the door and flew out to the platform. No one was in sight.

Was It a Hill-Billy?

"Queer," he muttered, returning to the warmth of his office. "Was that an apparition, or was it really the face of the hill-billy and moonshiner known as 'Stale Bread' Carney? Wonder what he's up to, loitering around here at this hour of the night?"

"He dismissed from his mind the face he had seen at the window, and thought of another—a much lovelier face—the face of Bess Delisle, one of the prettiest girls in the town.

"Ed Hutchison was only twenty—and with all the ardor of his youth he wished he might attend the 'watch-night party' that Bess Delisle was holding at her house.

"The door flew open, and in bounded three men, one of them covering Ed with a revolver. The men had bandannas over their faces. One, whose beard was not fully covered by the handkerchief, said to the operator:

"Open that safe, or you're a dead one!"

"Ed had been edging toward the drawer in which lay his gun.

"None o' that!" commanded the man with the betraying beard. "Step the other way—and open that safe!"

"What could a boy of twenty do, in the power of three desperadoes, except comply with their demand?"

"Ed opened the safe.

The Mask Falls.

"The bearded robber, while one of his pals kept the operator covered, knelt in front of the safe and ransacked it till he found the money. In the course of this performance, however, the handkerchief covering his face fell off. With a quick look he saw, by the expression of the operator's face, that he was recognized.

"I'll fix you so you can't tell nothin'!" he swore.

"Without bothering to hide his face again, he sprang at the operator and struck him on the head with the butt of his gun, and Ed. Hutchison collapsed.

"The three men kicked over the stove, scattering the live coals over the floor. Then they made their getaway.

"Meantime, up at Bess Delisle's house, a number of young folks were dancing and making merry generally, till suddenly some one announced that the hour of twelve was striking, ushering in 1908. Cow-bells, horns, and whistles combined in a deafening racket. Then a girl's voice was heard crying:

"Fire! The station's on fire!"

"It was the voice of the sweetheart of the man at the station—Bess Delisle.

"Hastily seizing hats and wraps, the young folks sped out of the house and toward the burning station, with Bess leading.

"Ed Hutchinson is there all alone!" she cried as she ran along.

"Hoy-yoy!" yelled the young men of the party as they passed each house on the way, thus arousing the inmates.

"The alarm spread, and by the time the party from Bess's house reached the station, a hundred townspeople had joined them, and all now got to work trying to save the building.

"Buckets were found, water was brought from the tank—but the volunteer fire-fighters could see plainly that the holocaust was beyond control and the station was doomed.

"But where's Ed?" called Bess De-

lisle. "He must be inside the building. Why doesn't he come out?"

"Yes, where's Ed?" chorused the men of Bess's party. They smashed the door of the wareroom at the farther end of the station. They dashed into the building through the smoke and flame—to emerge, a minute later, carrying the apparently lifeless form of Ed Hutchinson.

"Ed! My Ed!" called Bess Delisle, bending over the operator as they laid him on the ground. "Why, he's been hurt!" she added. "He's bleeding! Look! A gash in his head!"

"Bess dipped her handkerchief into one of the useless buckets of water, and washed the blood from Ed's brow. And as she did so, Ed opened his eyes.

"Good-by, Bess," he said. "I'm going."

"No, no!" protested Bess. "Tell us what happened," she added.

"Ed Hutchison gaspingly outlined the story of what had befallen him. The men of the party yelled: 'Stale Bread Carney will pay for this! When we find him, we'll lynch him!'

"The robbers thought, by firing the station," one young man said, "that Ed would be cremated, and we would never know what really happened."

"Ed! My Ed, don't go away!" sobbed Bess, as the operator finished his story, fell back and grew rigid.

"Five minutes later the biting wind was sweeping down from the hills around and around the living Bess Delisle, who lay on the ground with her lips pressed to those of her dead sweetheart."

In the next issue, Mr. Willets will relate some more of the dramas of Dixie.

GROWTH OF PENSION SCHEMES.

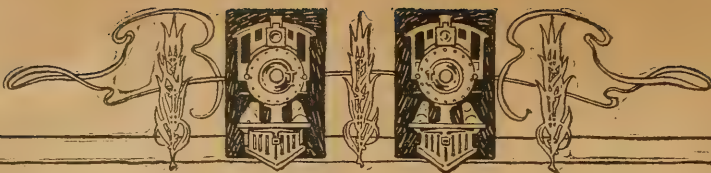
WITH the beginning of the year 1910, 165,000 railroad employees have been added to the 500,000 in this country to whom pension plans already apply. This large increase is due to the action of the New York Central and Rock Island lines, which have announced the installation of pension departments.

Other roads are considering the plan.

The largest government report on the number of railroad employees puts the total for the country at 1,672,074. Of these approxi-

mate 665,000 or about 40 per cent serve the roads which have pension systems.

Companies that now bestow pensions on employees are the New York Central, the Rock Island, the Pennsylvania; the Chicago and Northwestern, the Illinois Central, the Santa Fe, the Union Pacific, the Southern Pacific and its affiliated lines, the Lackawanna, and the Baltimore and Ohio, the Atlantic Coast Line, the Reading, the Jersey Central, and the Buffalo, Rochester and Pittsburgh.



A VOICE FROM THE OFFICE.

BY J. EDWARD HUNGERFORD.



HEN the air turns soft and balmy
And the birds begin to sing,
When the winter old and haggard
Gives the right of way to spring,
When the orchard trees are buddin'
And the grass begins to sprout,
Then I want to go a fishin'
In the brook for speckled trout.

Kinda get that "gappy" feelin',
And just sorter want to shirk
All my duties, for in springtime
It's no fun to be a clerk.
And my gaze goes out the winder,
And my mind goes up the track,
And I kinda wish that traffic
Was a little bit more slack.

Thus I slave from morn till evenin'
'Neath the chieftain's eagle eye;
But them way-bills hold no interest
Makes no difference how I try,
For a ripplin' brook keeps slippin'
'Twixt the paper and my pen,
And I scare the fishes off, but—
They come swimmin' back again.

When the days begin to lengthen
Then I'm haunted by a hook,
And I sit in vain a wishin'
I was fishin' in a brook.
I can see the woods around me,
I can feel the fishes bite,
When a voice says, "Look here, Willum,
This here bill ain't figgered right."

But I'll bet the chief has visions
Of a fish-hole now and then,
For I've seen his eyelids droopin'
And I've seen him drop his pen—
Then he'll sit up kinda jerky,
And he'll peel him off a chew,
And he'll say, "Get busy, Willum,
There's a sight o' work to do."



"THAT STREET-FLUSHING SCHEME WAS THE
REAL ARTICLE."



VALHALLA IN THE HILLS.

BY EMMET F. HARTE.

How the Water-Power of the Perfect Town Proved One Too
Many for Honk and Horace, Not to Mention the Capitalists.



HE last roll of sod had been laid and soaked with water and the last posy-bed rounded symmetrically at the western terminus of the P. and P., and Honk and yours of the clacking conversation sat gloomily silent in the medicine-house. Our work of parking the stations and beautifying the outlook for the long-necked hordes that travel was done.

Thoughtfully I inserted a record in our old comrade with the battered horn, and pulled the trigger. The tune was peculiarly fitting—it was something that went "Ta-ta, *au revoir*, good-by!"

"Not that!" Honk groaned. "Ho, hum! Not that! Heigh-ho! Ain't we just about the next thing to out of a job at this minute? What's your idea in playing that gruesome thing?"

"Excuse me," I said. "But then I've told you time after time that we were getting this work done too fast. We ought to have made it last a year longer at least. But you wouldn't listen. You're one of these ambitious lads that's got to do it all right at once—"

I paused as a shadow passed the window. "Here comes Sad-eye!" Samuel Dyer Collins, otherwise Sad-eye, was one of the operators at the Union Depot office. He bore tidings addressed to Honk, which same I took and read:

Simpson, etc., come headquarters;
bring car; immediate, important.

DADE.

Genl. Land and Immigration Agent.

"Hurrah and whoopee!" said Honk, after I read it aloud. "Horace, I told

you something would turn up for us. It never fails. I'm a mascot," and he slapped Sad-eye resoundingly on the back. "Trust to me; I'm It."

"Also something of a liar," I said. "You never told me any such a thing. Just a moment ago you were beefing about us being the next thing to out of a job. Hand back that plug of tobacco I gave you a half-hour ago, too, as soon as you get around to it."

"Horace"—his tone was reproachful—"you're getting more exacting and pettish every day you live." With which he went out to attend to our being attached to first train east.

The trip back over the line was uneventful; as unexciting a four days' journey as you could wish to take. Many points along the line recalled memories, though—Eagle Plume, where little Mack had found the gold-mine, which turned out a false alarm, after all; Blue Butte, where our handiwork still stood an oasis in the surrounding desert, and other points that suggested scenes—comic, tragic, and otherwise. We flitted on,

landing at last, with a final scream and jar, in the big terminal-sheds of the Other End.

It was nearly noon when we arrived, so we cooked and annihilated a couple of dollars' worth of *carte-blanche* grub, as our old friend Willard at Rivervale calls short orders; then, at peace with all the world and unafraid, we strolled up to Dade's office in the Burton Building, arm in arm.

The general land and immigration agent was in, and he wasn't near so big as his title. He was one of those little, runty men that walk bow-legged and have bristles on the back of their necks; with a voice that sounded like it needed dressing down on the emery-wheel. But he was loaded for us, and made his talk without any preliminaries other than a peculiar explosive husk-loosening he had.

"B'hum!" he said. "I've heard about you two; and I've seen a bit of your work along the-line. It looks good to me. I've prevailed on the company to let me have the benefit of your services for a while in the work of exploiting,



"HURRAH AND WHOOFEE!"
SAID HONK.

improving, and colonizing our land holdings out in the Mystic Hills country. B'hum!" He finished with a resounding guttural, and waited; glowering at us like a pug dog with the asthma.

I looked at Honk, and Honk favored me with his regard. Then my old time-tested friend spoke, as was his wont:

"On behalf of Horace here, who is a great hand at the kind of work you mention, but won't admit it, we are yours to command," he said. "Spin on."

"B'hum!" Dade detonated. "All right. The P. and P. owns a million acres or so between the Red River and the Sierras. Some of it's good, and some of it's worse. It's all salable, and we can and will sell it.

"It's pretty dry out there, but we'll have to rustle some water some way. We're willing to spend some money on the project—a lot of money, in fact. B'hum! The soil is—well, you know what it is, you've been to Blue Butte. I know what you fellows did there.

"Ever hear of a town called Arlene? No? It's out there in our tract; quite a town; a mile of brick buildings, opera-house, banks, stores, everything, and not a living soul in the town. Deserted; abandoned—b'hum!"

He waved a hairy hand airily, and continued: "Want you fellows to go out there—it's twenty miles or so from Millardsville, I believe. You can drive over—take a force of men with you, and put Arlene in shipshape. Slick her up, you know, and all that, ready for visitors.

"Then, I'll bring out a train-load or two of investors, and we'll auction off the town, and in the twinkling of an eye have a thriving city. Afterward we will throw open the surrounding country for settlement, induce the land-hungry public to come, and, coming, they will buy, settle, and remain.

"We'll build a spur from the main line to Arlene and—*presto!* The desert blooms as the rose that opens its petals and—b'hum!"

The man's enthusiasm leaped to us like a jump-spark ignition, and all aflame we arose and shook his hand. The scheme looked like simplicity itself.

"But remember," Honk said an hour later, as we prepared to depart, "the town is Arlene no longer. It is Valhalla!

Valhalla in the Hills! Horace, we're off in a bunch!"

The trivialities of gathering together a force of men, of shipping supplies—such as paints, wall-paper, whitewash, cement, tools, and foodstuffs, and a thousand other things—we put through with a hurrah. It was dead easy for us; we could certainly spend other people's money with gusto.

One day the whole works swarmed into Arlene—or Valhalla, I should say—and the game began. Did you ever see one of those enchanted cities you read about in the "Arabian Nights," where all the population, from the sparrows in the streets to the halo girls in the telephone central, had been turned into highly polished black marble? Never did?

Neither did I, but this deserted town of Arlene was about like that same, I guess, except that there wasn't any population at all. The population had been spirited away entirely. But the town was there, all intact, convenient, and complete.

As Dade said, there were brick buildings, well-built streets, sidewalks, block after block of residences, all untenanted. The hitch-racks were there, around the little plaza, and odds and ends, evidences of former activities, such as scraps of paper, tin cans, and cigar-ends in the areaways, were plentiful.

One could imagine that presently a sunburned team of plugs hitched to a rattly buggy would appear around the corner, or somebody would halo from the open up-stairs window of a building marked "saloon" across on the corner, but no such thing happened. Arlene was a dead one.

"Horace," said Honk to me, "here's where we'll spread ourselves. Here's where we'll build a city that'll make 'em all do the gawk act. I've dreamed of this, but I never thought it would come true." He scanned the near-by hills narrowly and swept the level plain with a self-satisfied glance, north, east, and west.

"Just there"—he pointed a lean finger toward the west—"we'll build our aqueduct and store the snow-water. Look at these brick-paved streets—we'll flush 'em every night. I'll have a clock-

work arrangement to do it automatically at a certain hour.

"We'll make a continuous flower-garden on both sides of these here streets. We'll build our own electric plant, run the city water supply through a turbine for power, throwing two stones at one bird, as it were. It's swell! Fine! Hooray! How's your stock of chewing holding out?"

"While I think of it," I said, "what's

hear," I said; "but go on in, lemons, I'm with you. If we don't do it, we'll leave it in such a fix nobody else will."

We rallied together our twenty men, gave 'em instructions, and started the ball rolling. It was a systematic and intelligent crusade against the natural order of decay in the town from that time on. We cleaned up, painted, and repapered the place from John O'Groat's to the Milky Way.



GLOWERING AT US LIKE A PUG DOG WITH ASTHMA.

going to be the main industry of this Valhalla community?"

"Sugar-beet factories, truck-farming, brick-making, cement," he snorted contemptuously. "I'll start a flying-machine factory that'll employ five hundred men, if nothing else. Gee! Anybody to hear you ask questions would think your ideas had started to ingrow on you. We'll make this village the eighth wonder of the twentieth century. Already I can hear the hum of dynamos and the whir of machinery under the brow of yonder hill—"

"That's the wheels in your head you

If we found a shanty that didn't suit us, or that Honk thought wouldn't look artistic when rejuvenated, we either razed, burned down, or blew it up, and made a park, a flower-maze, or a drinking fountain in its place. We repaired pavements and sidewalks, straightened up streets, sent for more men and teams, started our reservoir dam, and drilled for artesian water on suspicion.

The original population of the town had had a few wells with a kind of soap-sudsey tasting water in them, whose only merits were a certain wetness and the fact that it did not immediately result fatally.

These we left alone for the time being. Later they were filled up.

We established a twice-a-day line of wagon communication with the railroad, and offered free transportation and house rent to desirable families that wished to come in and get on the ground floor of Valhalla's wave of prosperity. How's that for maudlin metaphor?

While the water supply question was being investigated we designed and laid out a park and boulevard system, finished up all the concrete part, walks, fountains and cascades—everything up to snuff. We had it all ready for the turning on of the water.

"The populace of Valhalla will have playgrounds here for future generations," Honk said, and while we were about it he set up a number of artificial stone pedestals in the parks.

"What's them for?" I asked.

"Statues of Valhalla's great men, to be erected later," he said cheerfully.

"And is mine one?" I quoted.

"Nit—not so!" he replied. "Your fat face wouldn't look well in marble. It takes a Grecian profile like mine to show up."

"I've seen 'em like yours," I said. "Profile and front elevation on the same card; with measurements, location of scars, moles, and warts described on the back."

Along about that time the well-drillers struck a hundred-barrel-a-minute flow of water at some seven hundred feet in depth, and blew their apparatus up on top of a near-by building. They also flooded that part of town. It took us a week to cap it, and the whole force was pretty well bedraggled before it was done. Ten families moved into Valhalla the next day.

Honk ordered every available man to the work of laying mains, and the town hummed with industry. Two general stores opened up for business, and a man brought a roulette and faro outfit over with a glad smile.

It made quite a nice little bonfire with gasoline when we burned it. I touched it off, and Honk gave the fellow six seconds to get out of range. He made it in five.

"While I have it on my mind," he mentioned for the benefit of those present,

"I want it understood generally over the country that while Horace and me are sojourning around here Valhalla ain't going to be no disreputable mining-camp. All you boys can send picture-postals to your friends to that effect.

"Every desirable citizen who favors us with his presence will receive a warm welcome, and we'll try to find something for him to do; but the undesirables—siss, boom! Horace, tell Bill Smith to wire for two car-loads of sod and a thousand maple-trees when he gets to Millardsville this afternoon, and for 'em to rush it."

Three weeks after we commenced operations Valhalla was coming out of the kinks. The water-works dam was steadily climbing, a solid barrier of masonry across the ravine between two hills.

Honk estimated that the number of gallons of water he would have stored back of that dam by the following spring would be sufficient to reclaim the entire Mystic Hills country and then some.

The string of figures he had on the subject was a foot and four inches long—I measured it with a ruler.

Honk also had half a dozen things plotted in the way of plants for running dynamos to furnish light, heat, and horse-power so cheap the inhabitants would think they stole it, and his head was so full of pet projects for making Valhalla a living wonder in the way of a spotless town that his skull was beginning to bulge in places.

"Talk about the ideal towns of some of these Eastern capitalists," he kept dinning in my ears, "we'll make 'em all run for cover. Here we'll have a perfect climate, the unsullied soil in its virgin purity, a city built on scientific and artistic lines, everything hygienic, orderly, and ornate.

"When the good housewife needs a small order of groceries, she writes a slip and inserts it in a pneumatic tube—whisk! In a few minutes the white-aproned clerk stops his rubber-tired electric cart in the paved alley at the rear, and delivers the parcels.

"We'll harness this mysterious force of electricity to do the drudgery of Valhalla. On wash-day the good housewife dumps the soiled clothing of the family into a tank, presses a button, and behold! the said apparel comes out washed,

starched, dried, ironed, and folded neatly. I've got the machine to do it with all worked out in my mind." He tapped his forehead with a smudgy forefinger, and went right on:

"We'll have no ratty back yards and stinking garbage piles in the alleys of this city. All refuse will go into a chute that will lead to an electric incinerator. What'll be the consequence? No flies, no vermin, no disease-germs, no sickness. Mortality reduced to the minimum—"

"Why not cut out the mortality altogether?" I interrupted. "We can refuse to let any doctors in, and—"

"Future generations growing up in an atmosphere of health, beauty, and intelligence," he continued, unmoved, "will become broader-minded, more perfect physically, and—and—how's your chewing, Horace?"

"I only see one drawback," I said, while he was loading up, "and that is the fact that you'll have to contend with a lot of pork-heads that'll likely have little ideas of their own to introduce free of charge."

"Them we'll eliminate," he said. "Whenever a mossback pops into Valhalla and starts arguing that the world is flat, and that they done so and so back in Sumach Township, where he was raised, we'll gently but firmly escort him to the horizon and attach him to a sky-rocket."

"Why not proclaim yourself autocrat, and make 'em all swear an oath of allegiance before you let 'em light," I suggested. "Let me be your grand vizier; I'll bet I could grand-vize 'em to a purple perfection."

"Leave it to me," he said. "You'd probably get yourself beat up for nothing. I'll manage the deal by sheer weight of mentality and moral suasion. You go down and start the boys to razing that jail-building this afternoon; it won't be needed in Valhalla, and we can use the brick and stone in our power-house."

That same afternoon we went out to the eastern edge of our fair city to decide some question of the drainage in that direction, and on our way back ran plump into a caravan that was entering Valhalla from the north along our classiest residence street.

The argonautic expedition consisted

of two weather-stained and smoky sloops of the prairie, drawn by the toughest-looking crow-baits of horses I ever saw standing on hoofs.

A cadaverous-looking person, who needed various shaves, hair-cuts, and massages—not to mention the ordinary ministrations of soap and water—was manipulating the strings on the forward van, and a half-grown girl wearing a man's vest steered the destinies of the trailer.

Numerous progeny peered out through slits and other openings in the wagon-cover. Four nondescript cur dogs were acting as convoy, a coop of chickens dangled beneath one wagon, and an uncurried cow lounged behind the procession at the end of a rope.

As we approached, a sun-kissed female with a bearded wart embossing her chin cuffed the kids into the-offing, hoisted the canvas cover, and burst into conversation.

"Hey," she said, "what might a house rent fer in this yer town of your'n?"

"Have you a house to let, madam?" Honk queried blandly.

"Huh?" she asked, with suspicion.

The lord and master of the caravan anted and sat into the game at that juncture. He sprung it another way.

"We-all air jest movin' in," he said; and I noticed that his eyes weren't mates—one was blue and the other brown.

"We want to git a place fer about three dollars a month to live in," he confided—"something with enough ground to raise chickens an' a few pigs an' a gyarden. I do teamin', an' the old woman does washin' an' sich. You fellers know of eny sich a place?"

Honk was overcome with his own emotions, and gazed in a dazed silence. I spoke up.

"I know the very place you want," I said fervently, "but you'll have to turn east at this next corner. As close as I can remember, it's about eighty rods from the mouth of the Kaw River, in Kansas City, Kansas. I don't know of a thing nearer."

It never touched them. It was a clean fumble.

"We like the looks of this here place pritty good," the woman said. "Drive on, 'Lias—these men don't know nothin'.

That there tall one looks like a eediot, anyhow."

"Tarry a moment," said Honk, with deep solemnity, as the man clucked to his nags. "Lemme whisper something in you people's ears" before you get into serious trouble.

"This town is infested with a band of murderous ruffians, who wouldn't think nothing at all of seizing everything you possess the minute they lay eyes on you.

"Fly! Fly, while there is yet time! There isn't a woman in this town—only wild and lawless men. Hurry up! Whip your steeds to their utmost, and never breathe freely until you've put many miles behind you."

Just then a blast from the hills to the westward rumbled to us.

"Hear that?" Honk said to me. "That's Bloody Ben's pump-gun—I know the roar of it. He's killed somebody again. Fly, stranger!" he urged the pilgrim in the wagon. "You may be able to make it yet—but I doubt it—you've waited too long as it is. We'll try to keep 'em off you for the sake of your kids."

Two or three of the latter began to whimper at that, and the woman got rattled. Alkali Ike himself showed signs of nerves.

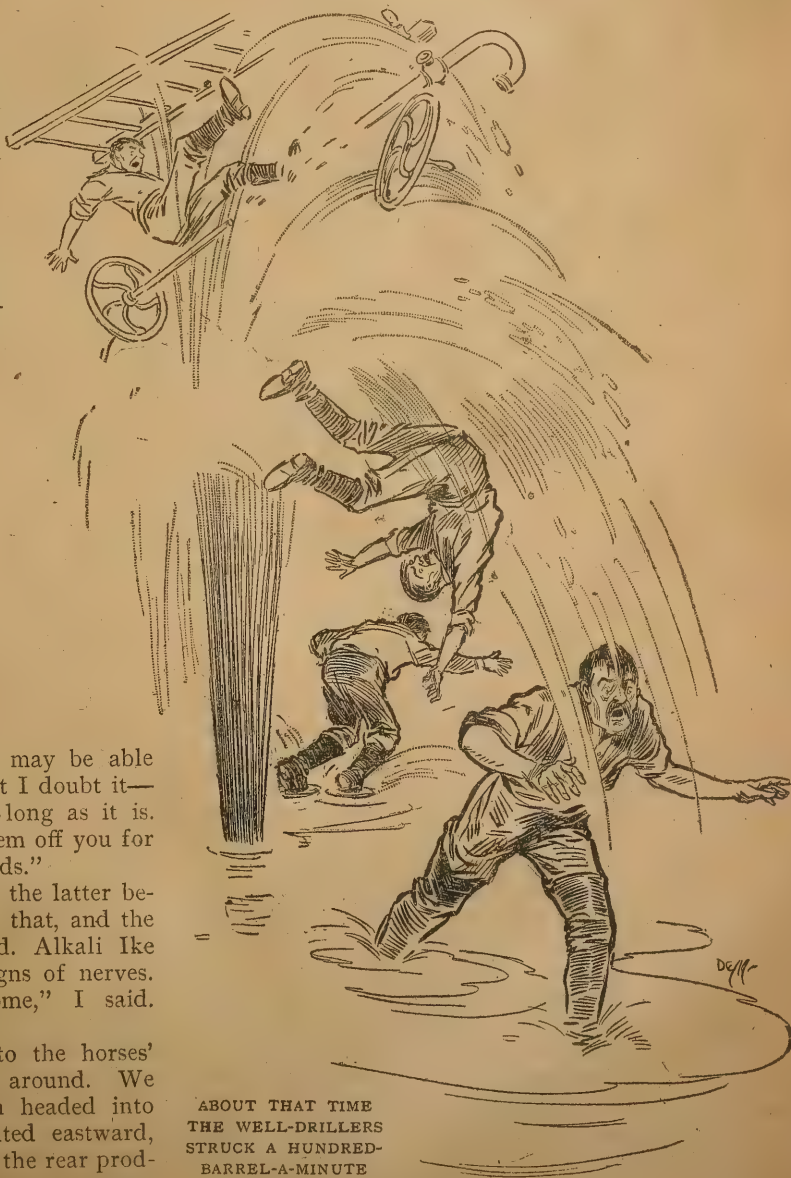
"Here they come," I said. "I hear 'em."

And I rushed to the horses' heads to shoo 'em around. We got the procession headed into an alley and pointed eastward, Honk bringing up the rear prodding the cow, and away we went.

The pursuit died away, and they crept stealthily out and trekked for afar without much urging; every kid under cover, and the grown-ups looking back now and then to watch for imaginary brigands.

The man took time to ask Honk if he had any "chawin'-terbacker," however, before the final parting, and was cited to me.

I surrendered all I had, and told him not to give it back. He didn't.



ABOUT THAT TIME
THE WELL-DRILLERS
STRUCK A HUNDRED-
BARREL-A-MINUTE
FLOW.

We lurked around behind a fuel-shed, and watched them until the last wagon faded over the slope.

Honk sighed with relief.

"Phew!" he whistled. "I hope there won't any more come like that bunch. I'm wore clear out."

"Didn't you like the looks of them?" I asked.

"Why, that's the kind of people that'd picket their cow in the street and keep their pigs in a movable pen in the parks," he said with bated breath, as he wiped away the cold sweat.

In truth, Valhalla was looking as cute as could be by that time. Grass and trees were growing in the parks and along the streets. There'd been enough rain in the hills to start a tolerable-like puddle of water in our reservoir, and every house, shed, and building in the town had received new paint and other rejuvenation, all of which helped some.

Honk fixed up his street-flushing scheme, with its automatic attachment, and it worked like powder in the fire. He had his flood-gates all connected up with a clock, and at a certain hour—midnight was selected for convenience—all the paved streets of Valhalla were deluged with a sheet of whirling water which ran down 'em like a mill race and washed 'em as clean and spotless as newly polished brass railings.

It was supposed to open and shut itself, and was no bother whatever. All that had to be done was to keep the clock wound and set at the proper hour.

Honk was considerably harassed in his mind for several days after the visitation of the two prairie schooners, for fear we'd wake up some morning and find that a mess of poor white trash had moved in during the night. He suffered many misgivings on that score, muttered in his sleep, and harangued imaginary desecrators of Valhalla's exclusive environs.

He didn't become wholly reconciled and free from these morbid fears till I journeyed over to the railroad one day and brought back from the medicine-house our loquacious friend, the phonograph, which we installed in the drawing-room of the ten-thousand-dollar pressed-brick residence we were occupying at that time, and turned it loose without restraint. Then Richard was himself again.

A few doses of "He Walked Right In, Turned Around and Walked Right Out Again," and "The Welcome on the Door-mat Was Never Meant for Me," and Honk was right side up with care.

"There's nothing like a little line of music to chirk up the downcast spirits of a hard-thinking fellow like yours, etc.," he said. "After listening to a few selections from the classics like 'What's the Use?' and 'Take Back Your Heart, I Ordered Liver,' a man can chew his tobacco with the relish of boyhood—eh, Horace?"

At last we got things in Valhalla just about as sniptious as they'll ever be short of divine interference, and so reported to Dade, who was waiting for the word. Honk went over and wired the details himself, direct. Dade promised to come a-running with his party on a certain date all set, and Honk came-back to Valhalla, stepping high and wearing his Oh-piffle-there's-nothing-to-it smirk.

"They can't get away from it," he said, puffing indolently at a cheroot he'd acquired somewhere. "It's all foregone—nailed, tied, and tagged. If Dade brings really truly people with money to invest out here it's all over but writing the receipts."

It was a Friday when the Dade party stormed Valhalla. They came in ten big automobiles, each loaded to the guards—I mean the automobiles—and were quite a likely looking herd of plum-seekers. There were five severely critical women in the party, whom Dade confided were wary and mightily sophisticated, but had the coin to spend if we could show the goods.

Then there were fifty or sixty fat and foxy gents of various ages and varieties of personal charm, who were rated at all the way from tolerably well-heeled to double A one star plus x. All took a keen interest in everything they saw, and there wasn't much they overlooked either, by the way.

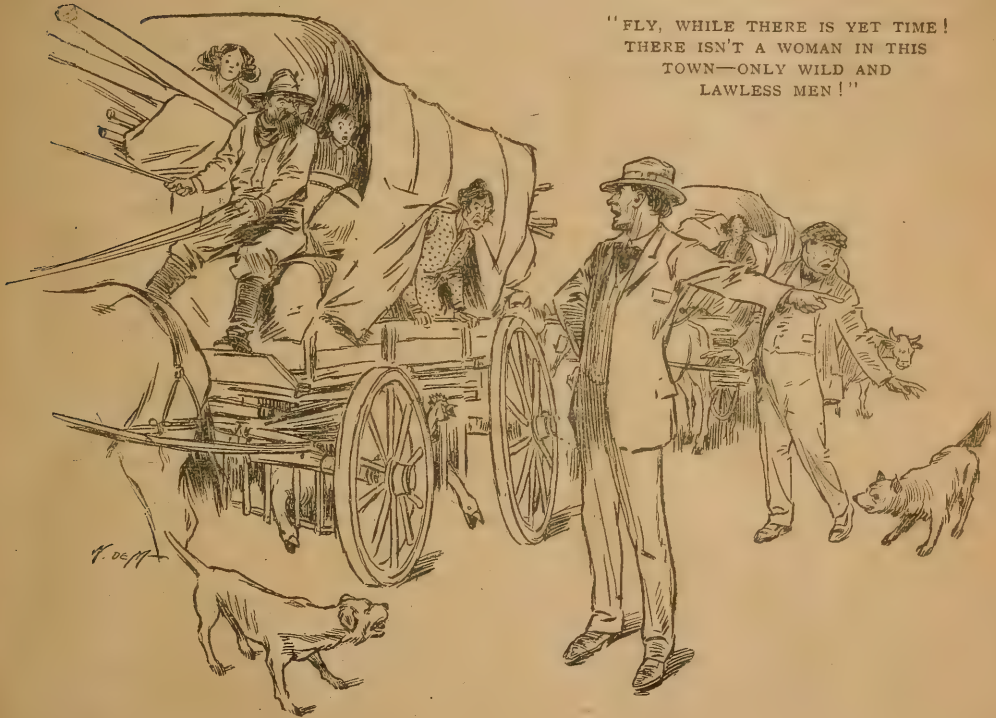
Honk burst into radiant blossom and marched proudly at the head of the parade, spendthrift of words and figures, loud in explanation of the enormous possibilities at hand—bubbling, spouting, and spraying his enthusiasms right and left. I trotted along, not to make any big talk or to volunteer any rash asser-

tions, but just as a sort of corroborative witness, if needed. If Honk stated that electricity could be made and furnished for one-eighth of a mill per watt hour, thousand feet, or crate, or whatever he said, couldn't it, Horace? I was there to nod sagely and look around as if daring anybody to offer a bet to the contrary.

Valhalla made a favorable impression

envelope, too, which shows what a man can do when he's warmed up. Honk was a mean hog when it came to figures on water-power. After awhile they got to palavering about factory sites and jotting down memorandums of this, that, and the other for future reference.

Some of them proposed to dabble in real estate pretty promiscuously. You



"FLY, WHILE THERE IS YET TIME!
THERE ISN'T A WOMAN IN THIS
TOWN—ONLY WILD AND
LAWLESS MEN!"

on 'em, all right. Our wide, clean streets; our parks, lawns; neat, newly painted buildings, and the general air of spotlessness pervading everything, caught 'em. We took the whole push all over. We showed 'em Valhalla from every angle.

We piloted 'em out into the hills, where they could get perspectives and take a look at the reclamation work. Honk proved to every one of them except a certain austere-looking young lady with a trigonometrical forehead that he had water-power enough within hailing distance to run—as ponderous and complicated a plant as the mills of the gods themselves.

He did it that time on the back of an

could see that from the way they gloated over the residence streets from points of vantage.

Then we showed 'em our street-flushing scheme, and explained it, called attention to our sewerage, visited the artesian well, mentioned the fertility of the soil, the peerless climate, the latitude, longitude, altitude, and attitude of Valhalla, which made all others look like tin money in a clearing-house, succeeding which the push went to lunch, with the understanding that the afternoon was to be occupied in signing up contracts, deeds, franchises and concessions, smoking perfectos, chewing gum, and exchanging attests.

There was a four-story, rough-faced

brick hotel building, as yet untenanted, whose big dining-room was used for this occasion.

Some of the guests really enjoyed the canned goods. It was change enough to appeal to 'em. About the close of the banquet Honk slipped out and called one of our henchmen—one Butch Poteet by name—and told him to hot-foot it up to the waterworks and turn on the water.

"Turn on the park mains, Butch," he said. "And give us some pressure. I want to show these people what we've got. Turn on the whole works." We dilly-dallied around to give Butch time, and then Honk proposed that everybody go over and sit in the park for an hour or so and enjoy a nice rest by the cascades. Sure they would. Fine! Excellent idea! So we all started.

Now, so far as I know, nobody ever gets to be such a favorite of fortune but what trouble won't sneak around and smell of his trail occasionally. And trouble happened along there just about then. There we went, parading up Valhalla's quiet street, in the best of humors all. Dade was expounding to those nearest on the history of Valhalla in his usual effective manner.

"A great and important drawback to this country heretofore," he was saying, "has been the lack of water. It has been a perplexing—b'hum!—problem, and it remained for us to solve it, which we have." One old gentleman, whose hearing was going down the western slope, didn't quite catch the gist.

"Eh?" he said. "You say you have solved it? How?"

At that moment a two-foot wash of racing water danced into view fifty yards away, stretching from curb to curb of our street, and coming toward us with the speed of a mail-train trying to make up a lost hour. Dade didn't need to answer, the bunch could see.

When that young river struck our party of investors there was a squeak or two from the ladies, and a kind of a sigh and a heave from the male portion, then—down went McGinty!

In the twinkling of a mischievous eye our street was a squirming mass of legs, arms, and other débris shooting the rapids. It was heap much splash! Away went the ladies merrily, and here and there a

bald head bobbed up, spouted, and clove the water like a porpoise.

I went down with the rest; but managed to port my helm and luff to the starboard, so I climbed out on the curb and watched ye regatta. There went old Honk, clawing at the pavement on his hands and knees, and a large gentleman, with a parasol, bore down on a skinny man, who was traveling rapidly in a sitting position.

Some managed to regain their feet, but in attempting to gallop ashore lost their footing and reposed again in the hurrying tide. It didn't let up, either. Butch had "turned on the whole works."

That-street-flushing scheme was the real article. It took along wheat and tares just the same as the sheep and goats. Whether they wanted to go or not made no difference—they went.

Was that outfit angered? Ask Honk. As quick as that crowd of aquatic reporters scrambled out of the souse and got its bearings, they made high jumps and sprinkled the side streets for the automobiles. And they didn't listen to any explanations or excuses, either. Not them!

It was back to the taxicab for them and steer for the land where streets are flushed by the time-honored method of a section of hose on the corner fire-plug. Dade bobbed up out of an alley about the last of all. He had made the longest race of any but one, but he was so waterlogged that he let the guy beat him back to the home base.

Dade was too full for utterance. He tried to rally 'em around the old flag, but there was nothing diddling, so he busied himself with coughing up large chunks of wet water and exploding periodically like a gasoline engine with a bum sparker.

With deep dejection, Honk stood, with his wayward feet splashed by his drip, and watched them sail away. Some of them even went so far as to shake sand-caked fists at us over the backs of their cars as they left, many bareheaded, with their scanty hair drying awry in the sun.

"I thought these capitalists were great hands for a plunge," I remarked, with a watery leer.

"Come on," Honk said. "Let's go find that Butch. I want to whisper something to him with a club."



Heraldry of the Railroads.



BY GEORGE FOXHALL.

FLAGS, emblems, and coats of arms are by no means the product of a desire for useless ornamentation. When they were first invented they served a remarkably useful purpose. Of course, it is a purpose that no longer exists, but devices of this character still serve a purpose as useful. Among the thousands of public-serving corporations, where names are complex, numerous and, in many instances, similar, a well-chosen device is often more distinctive and better known than the name itself.

The Romance of the Continent-Covering Steel Tracks As It Is Embazoned Upon the Scutcheons of Time-Tables, Posters, and Rolling Stock.



IN the old days, when the world's history was in the making, certain gentlemen of amiable temper went wandering around spiking each other upon the ends of long spears. This was doubtless a very modish and convenient form of amusement; but as the pastime increased, and the gentlemen were led to clothe themselves in iron-ware, it became very hard to distinguish the person one wished to spike from the people who, because of affection or policy, he might desire to leave unspiked.

That is why the custom of carrying a bannerette or an heraldic device, painted with more or less art upon the owner's shield or helmet, came into effect. At first it was a rather happy-go-lucky sort of business, and the method of deciding what particular device should be adopted was left pretty much to a happy chance.

For instance: Some gallant gentleman is wandering along the highway at dead of night. He comes across a mortal enemy, and gallantly removes his head from his shoulders with a



long two-handed sword. Posterity is informed of this fact by an attractive engraving of a dripping head, *or*, beneath which is a cleaving sword, *argent*, on a field *gules*. And there you have a thoroughly well-made design, ready for your descendants to use forever and ever.

The writer may add, incidentally, that the terms *or*, *argent*, and *gules* are heraldic terms of which he is as blissfully ignorant as he is blissfully indifferent. Therefore, if some student of antiques should find in the heraldry of these designs something to take exception to he is doubtless quite right.

Making Family Decorations.

By and by, however, people quit spiking each other and sawing off heads for the sake of getting decorative family ornaments, but the same old custom of identifying oneself by painted devices survives. Whether it was because of the good start it got, or because it reminded humanity of its former pleasant, primitive glories, we do not know.





We doubt, however, whether anything bloodthirsty survives with the idea, as we are sure that none of the

well-conducted corporations who have been at great pains and considerable ingenuity to devise attractive designs have anything in their minds except the devout desire to serve a more or less bloodthirsty public.

Every reader is familiar with the heraldry of the sea—at least, we like to tell every reader that he is, though doubtless he is not; but, anyhow, he knows that such a thing exists. The flags of the various merchant lines, as well as the national flags, war flags and ranking flags of the great navies of the world have been the subject for endless journalistic effort.

But there is a heraldry as important under the devices and banners of which flies at terrific speed wealth of treasures and lives many times in excess of that beneath all the banners that cover the face of the waters. Perhaps its significance is not as keen, but its symbolism is often as deep and as romantic.

Swastika of the Rail.

In glancing through the field of railroad heraldry, the first place historically must be given to the emblem of the St. Louis, Rocky Mountain and Pacific Railway Company. This emblem has practically got all mottoes, devices, or designs, enacted or constructed by our spike-sticking friends, beaten all the way round the world when it comes to age.

The main ground of this device is a swastika. The swastika was doubtless invented by some friend of the great-grandfather of the gentleman who built the Cheops pyramid or the smiling Sphinx or the hanging gardens of Babylon or the Tower of Babel. Anyhow, it seems to have been found in every part of the world, and at every time that history can put a tag on; and some that she cannot, even if she does not admit it.

The swastika on a black flag, with a circle surrounding it, bearing the words, "The Rocky Mountain Route," is the



emblem of this road.

It probably typifies the age-enduring strength and richness of the country through which

the road passes, as well as hints at its history, the swastika having been one of the earliest decorative designs of the American Indian tribes.



An Emblem and a Religion.

There is so much to say about the Northern Pacific's peculiar trade-mark that the difficulty is in selecting things to be said in the short space we wish to occupy so as to give a full idea of the large meaning of the symbol. For antiquity, this trade-mark runs the swastika a pretty good second.

As nearly as it can be traced, it originated, as a symbol, in the abstruse mind of a young Chinese named Chow Lien Ki. This young man was an ardent lover of nature, and in the course of his rambles he discovered a cave of peculiar formation.

He used a modification of the outline of this cave to illustrate a system of philosophy established by Fuh Hi, a Chinese philosopher, who lived some three or four thousand years before Christ. The symbol, which at first seems very complicated, is in reality exceedingly simple.

If you describe a circle, and rule a line through the diameter, then describe two semicircles, having the center one-quarter of the distance and the circumference touching the center of the larger circle, the semicircles facing in opposite directions, you will have the simple outline of the Great Monad.

The system of philosophy is stated as follows: "The Illimitable produced the Great Extreme; the Great Extreme produced the Two Principles; the Two Principles produced the Four Figures." And from the Four Figures were developed what the Chinese call the Eight Diagrams of Fuh Hi, in 3322 B.C.

Taken from the Korean Flag.

This is the origin of the symbol, but it is not from this source that the Northern

Pacific adopted it. To quote from the history of the trade-mark as published by the company:

"The design was discovered and adapted to its present use in 1893. Mr. E. H. McHenry and Mr. Charles S. Fee, then, as now, the chief engineer and general passenger and ticket agent of the company, respectively, are principally to be credited with its discovery and adoption.

"The Northern Pacific was in search of a trade-mark. Many designs had been considered and rejected. Mr. McHenry, while visiting the Korean exhibit at the World's Fair, was struck with a geometric design that appeared on the Korean flag.

"It was simple, yet effective—plain, yet striking. At once the idea came to him that it was just the symbol for the long-sought-for trade-mark. With but slight modification it lent itself readily to the purpose."

The Aristocrat of Emblems.

Another design, the foundation of which can do pretty well in the matter of having attained years of discretion, is the "F. F.V.," significant of the great flyer of the Chesapeake and Ohio, between New York and Cincinnati. This emblem is a product of local pride, and as the streak of yellow glory flashes herself brilliantly through the vivid Virginia sunlight, the First Families of Virginia in particular and in general look upon her with patriarchal pride and think of the old days when to be of the First Families of Virginia meant to be a prince in the State—if such a thing as a prince can exist in a democratic commonwealth.

In short, the origin of the symbol, "F. F.V.," or, to quote the full title of the train, "Fast-Flying Virginian," is a complimentary reminder by its initials of the phrase, "First Families of Virginia."

In that section of the country before, and shortly after, the Civil War this term was so much used, and it had so much

meaning, that the abbreviation "F.F.V." was quite common.

When wishing to attract the attention of the public to the first solid vestibuled, electric-lighted dining-car, sleeping-car and coach through train operating between the East and the West, Mr. H. W. Fuller, then general passenger agent of the road, decided that the surest method was to use some form which would abbreviate into these famous initials "F.F.V."

Some of the emblems adopted by railroads are very simple, apt, and obvious. Such as, for instance, that of the Reading. This design is a black diamond, with the lettering "The

Reading" in white characters on it. It need not be explained that this is significant of the anthracite territory through which the Philadelphia and Reading, a great coal-road, operates.

The Lehigh Valley has a similar significance, except that its black diamond, bearing the white letters, "Lehigh Valley," is placed upon a bright red flag. This was originally designed by the former general manager of the Lehigh Valley Transportation Company, which operated a line of boats upon the Great Lakes, and was adopted as the private signal of the boats on that line.

These boats formed the lake line of the Lehigh Valley Railroad Company, and were engaged principally in transporting anthracite coal from Buffalo to St. Paul and Milwaukee. The idea of this gentleman was to use the red color as indicating the color of the flame peculiar to anthracite, the black diamond to represent the coal itself, while the letters, "Lehigh Valley," were shown on the diamond in white to indicate the cleanliness and purity of the road. This emblem was adopted by the Lehigh Valley Railroad Company about the year 1890.

The emblem of the Wabash Railroad consists of the word "Wabash" in white characters on a black square on a red flag, intended to carry the conviction to the observing eye that the Wabash is the



banner road. The emblem at first was shown in the glare of a headlight, instead of on the banner, but as the Wabash grew older and began to look around and see what a big-sized boy it was becoming, it decided that it could just about show its tail-lights to anything on the line. So it threw the headlight out and became the Banner Road.

Admiration or Derision.

Everybody knows that the New York, Chicago and St. Louis Railroad is the "Nickel Plate." Very few people know why. Personally, the writer has two stories why, and as they are both good ones he prefers to believe them both; not because of any similarity that exists between them, but because he got them both

from very high authority, and both of them were doubtless told in perfect good faith.



The reader will probably make a choice. The writer has too much admiration for the veracity of everybody. The first story relates how, early in the construction of the line in 1881, great rivalry was manifested by several of the larger towns in Ohio in efforts to secure the location of the road.

Among these rival towns was Norwalk, Ohio. The editor of the *Norwalk Chronicle* was a member of the committee having in charge negotiations for the location through that city; and when the final decision to run the road via Bellevue was reached, this editor, in a spirit of disappointment, stated in an editorial that "after all they were not losing very much, as it was nothing more than a nickel-plated road, anyhow."

As our informant comments, from this remark, made in a spirit of derision, was designed for this line the distinctive appellation whereby it is known all over the world.

The other story that we have at a later date casts, we regret to say, some



aspersions upon the veracity of all rival story-tellers, among whom doubtless was our own faithful chronicler.

This informant says: "The popular sobriquet of the New

York, Chicago and St. Louis Railroad has furnished the subject for the weaving of many and varying tales, each with more or less foundation in fact, as suited the purpose of the dreamy narrator of corner-grocery legend or the resourceful and visionary space-writer doing time on the Sunday blanket-sheet."

This mild ridicule rather hurts the feelings of the present writer, for he has told the first story himself effectively, amid deeply touching scenes, many, many times, and at so much per. Our cold-blooded critic and informant tells us that in place of our own delicately constructed little narrative we should all the time have been relating the following bald facts, which, while they have many points of similarity with our own bold narrative, lack the touching dramatic atmosphere thrown in by the bitter disappointment of the Norwalk editor.

We are told that this editor was actually building up the enthusiasm of his fellow citizens amid the very pleasant rivalry of the Ohio towns, and that in the issue of April 14, 1881, of the *Norwalk Chronicle*, he spoke of the road, its glittering prospects, the brilliant possibilities opened up for the cities through which it operated, together with the gilt-edged character of its financial backing, and characterized the institution as "the nickel-plated road," the term having been intended as showing a bright and exceptional attribute of the enterprise.

The Domestic Katy.

The emblem of the Missouri, Kansas and Texas is also in the form of a nickname, "Katy," and is doubtless better known among railroaders as "Katy" than by its longer and more dignified appellation. The name springs from the fact that the Missouri, Kansas and Texas was, prior to 1888, operated as part of the Gould Southwestern system, being known

at the time as the Kansas and Texas division. This among trainmen was naturally abbreviated to "K. and T.," and thus to "K-T," and therefrom, by this easy step, into the touching, homelike, and affectionate cognomen, "Katy." It is very domestic.



The "Keystone" System.

Of course, everybody knows why the Pennsylvania Railroad adopted the trade-mark of the keystone; and, of course, everybody is wrong—at least, they are a little shy of facts. The Key Stone, as an emblem of the Pennsylvania, is the result of a westward movement among emigrants and among the presidents of the State of Pennsylvania in 1877.

Mr. Thomas E. Watt, who was at that time district passenger agent at Pittsburgh, in preparing some advertising for the purpose of influencing this business, suggested the use of the Key Stone. His suggestion, as carried out at that time, included with the keystone the headlight of a locomotive, and the rays of light from the headlight illumined the reading matter on the flyer.

Mr. L. P. Farmer, then general passenger agent, was struck by the effectiveness of the idea, and suggested that the keystone would be most suitable as the regular emblem for the Pennsylvania Railroad.

Canada's National Railway.

One of the most picturesque of railroad trade-marks is that of the Canadian road, the Intercolonial Railway. This device is a moose head looking through a double circle, on which appears the words, "The Fast Line, the People's Railway." This was first used in 1883, and in 1887, with the Canadian arms, was made a combination device, indicating the government ownership of the railway.

The moose head was adopted by this railway because no other railway in the country passes through such an extensive stretch of country so definitely recognized as the home of the moose. Both the moose

head and the coat of arms appear on the folder, but the moose head is the recognized trade-mark of the road.

Santa Fe's Repentant Moods.

Perhaps no railroad has changed its trade-mark as often as the Santa Fe. The trade-mark adopted in 1890 is described by the *Santa Fe Employees' Magazine* as looking like a cake of soap, with the words "Santa Fe Route" across it.

The trade-mark adopted in 1894 is very gorgeous, but is a product of the very worst pun that man was ever compelled to survive under. The main portion of the device is the Western Hemisphere, with a lion standing on top and the words "Santa Fe Route" scrolled beneath.

We are asked to appreciate the significance of this work of art as "the Big Line" (lion).

The present trade-mark of the company was devised in 1901, on train No. 2, going into Chicago. Mr.



Davis, then industrial commissioner, and Mr. J. J. Byrne, at present assistant passenger traffic manager, used what they said was a silver dollar, but what was doubtless a poker chip, to draw a circle, and within the circle they drew a cross. This device is not so ornate as the one of 1894, but it stirs up less animosity against the designers.

First Railroad Trade-Marks.

But the Santa Fe line pales into insignificance in the matter of ornate design when compared to the old trade-mark of the Chicago Northwestern. It was, perhaps, the first design adopted by any railroad as a trade-mark.

The company, therefore, had nothing to guide it, and the result looks like Halley's comet striking a palm-grove. The only thing it leaves whole is a map of the Northwestern route, and about the only thing we can be sure of is the statement set forth and





only slightly damaged by the comet's tail, that "the Northwestern penetrates the richest and most attractive portions of Illinois, Iowa, Nebraska, Wyoming, Wisconsin, Minnesota, Dakota, and northern Michigan." Evidently the penetration was very effective.

One is prepared to forgive even the Northwestern, however, for turning to a simplicity just as pronounced and effective as that of the Santa Fe. The trade-marks now used are a circle with a diagonal hand across in black, with the words "Northwestern Line" in white, and a square of black, with the words "Chicago and Northwestern Railway" in white relief.

The maple leaf of the Chicago Great Western Railroad has an origin all the more interesting because the man who designed it received one hundred dollars for the job. In 1889 Mr. Busenbark, general passenger and ticket agent of the Chicago, St. Paul and Kansas City Railway, as the road was then called, offered a prize of one hundred dollars to any ticket agent in the United States who could suggest the most appropriate trade-mark for his company.

The result was that Mr. R. G. Thompson, who is now ticket-agent for the Wabash at Fort Wayne, Indiana—or was, some time ago—sent in the maple-leaf design, with the Chicago, St. Paul and Kansas City Railway System sketched into the veins of the leaf. The road has carried this design ever since.

Very few railway emblems or trade-marks can boast of a better known or more distinguished designer than that of the Atlantic Coast Line. In January, 1871, Colonel A. Pope, who was then located at Wilmington as general passenger agent, devised the present emblem, a double circle, with the words "Atlantic Coast Line" in red in the center and the names of the States through which it passes between the circles.

The Atlantic Coast Line informs us

that there is no special history connected with the trade-mark. We think that most old railroad men, especially in the South, will agree that it is sufficient history for any trade-mark to have been designed by such a famous railroad man as Colonel Pope.

Is It a Clover-Leaf?

The emblem of the Toledo, St. Louis and Western Railroad, popularly known as "The Clover-Leaf," is a standing monument to the native shrewdness of an Irishman. This Irishman, Mr. James M. Quigley, was the president of the road in 1886.

When the track was being changed from narrow gage to standard the company wanted an emblem, and the president suggested the shamrock. The directors held up their hands in indignation, and Mr. Quigley beat a strategic retreat, and smilingly suggested a clover-leaf.



The result is that till this day nobody knows whether the original emblem was a shamrock or the clover-leaf. The writer has friends who say they know the difference, but as he does not know himself he does not believe them.

In the matter of heraldry, the Chicago and Alton goes the whole hog. This company's design is real dyed-in-the-wool, medieval heraldry. The basic design is a shield surmounted by a very uncomfortable-looking helmet, which is, in turn, surmounted by an electric headlight with wings. It is very awe-inspiring.

On the shield are three links placed triangularly, and indicating the fact that the Chicago and Alton links the three great cities of the Middle West—Chicago, St. Louis, and Kansas City. Surrounding all this design is an artistic pattern of leaves, and surmounting the whole, in a cloud of steam, evidently coming from behind the light, are the words, "The Only Way."

These words, "The Only Way," form the advertising slogan suggested by Mr.

"The Only Way."

Henry Miller's presentation of his play, based on Dickens's "Tale of Two Cities," and called "The Only Way."

From such small beginnings do great things come.

Evolution of the Rio Grande.

The trade-mark of the Denver and Rio Grande was composed and evolved, as the writer is informed by its evolver, after much cutting and pasting and printing, and the exercise of considerable art and more ingenuity from a number of designs submitted by railway printing-houses, at his request.

The route is well known in its advertising as "The Scenic Line of the World." Most of the designs submitted were, curiously enough, formed by the head of a locomotive-boiler, some with one kind of ornamentation, and some with another. The combined result of all these designs is the front end of a locomotive-boiler, with the words "The Scenic Line of the World" on a banner beneath it, a mountain scene on the steam-chest, and the name of the company surrounding the view.



These prints are made in sizes standardized to United States coin, such as the dime size, the dollar size, and the half-dollar size, etc. This trade-mark has been used since 1885, and every piece of advertising or stationery has had the trade-mark on since last year.

One of the greatest railroads of the continent, the Canadian Pacific, uses one of the simplest but most effective of emblems. It is a beaver *couchant* above a black shield, with the words "Canadian Pacific Railway" in red. The beaver is, of course, emblematic of Canada, while the shield is the company's design for bearing its name. How this trade-mark originated is not known, as the early records regarding it were destroyed by fire some years ago.

The widely known trade-mark of the New York, New Haven and Hartford

Railroad made its first appearance on the margin of a newspaper, and was evolved from the original type arrangement by the late Mr. C. T. Hempstead, who was general passenger and ticket agent at the time. He was traveling to New Haven from Lyndbrook, when he hit upon the design and drew it on the margin of his newspaper. For several years it was used in type form, but the emblem has now become a recognized feature of the railroad, and it is planned to make much more extensive use of it than heretofore.



Probably no railroad emblem has quite as much historical and legendary interest surrounding it as has the San Pedro, Los Angeles and Salt Lake Railroad, known as "The Salt Lake Route" and "The Arrow Head Line."

The design is taken from the phenomenon on the Arrow Head Mountain, near San Bernardino, California, one of California's geological wonders.

On the face of this mountain, and overlooking the whole of San Bernardino Valley, stands out in startling clearness an immense arrow head, caused by a formation geologically different from the rest of the mountain. It consists chiefly of disintegrated white quartz and light gray granite, and is covered by a growth of short white sage and weeds. This lighter vegetation shows up in sharp contrast to the dark green growth of surrounding chaparral and greasewood.

By actual measurement the arrow head is 1,375 feet long and 449 feet wide, covering an area of seven and one-half acres.

The legends regarding it are numerous, covering a period from the undated past to as recently as 1858. Perhaps the most appealing and pleasantest of the legends is that of the Coahuia Indians, which is to the following effect:

In the days of long ago the Coahuia dwelt across the mountains to the eastward, near the San





tated their fields, and burned their jacals.

Thus for many years they lived unhappy and in constant fear, until at last the persecutions could no longer be endured, and at command of their chief the tribesmen gathered in council for the purpose of calling upon the God of Peace to assist and direct them to another country, where they might acquire a quiet home land.

Impressive incantations and ceremonial songs of peace were performed under the direction of the chief medicine man. Now, being a gentle people, they found special favor with the Great Spirit, by whom they were directed to travel westward, and instructed that they would be guided to their new home by a fiery arrow, for which they must be constantly watching.

Accordingly, the tribe started upon the journey, and one moonless night, when the camp sentries had been posted with usual injunctions to be watchful, there appeared across the vault of heaven a blazing arrow which took a course westward, settling upon the mountain, where the shaft was consumed in flame, but the head embedded itself, clear-cut, in the mountainside.

The camp was aroused, and while yet the morning star hung jewel-like in the sky, and a faint gleam of light in the east heralded the approach of day, they resumed their journey to the promised land, under the shadow of the mountain, where they located, and lived in peaceful contentment until the coming of the white settler.

As far as national interest is concerned, the Baltimore and Ohio will probably always take precedence in the railroad world, for the reason that it was the first incorporated steam railroad in the country.

Emblem of the First Route.

Its emblem is peculiarly fitted for the road possessing this distinction, and besides it has a particularly artistic and

Luis Rey Mission. Now, although of a peace-loving disposition, they were continually harassed by their warlike neighbors, who stole their ponies, devas-

distinguished effect, especially in colors.

The dome of the National Capitol forms the groundwork for the emblem, and a ribbon encircles it, with the words "The Baltimore and Ohio Railroad"; and in the upper rim of the circle the words, "All Roads via Washington." There seems to be no particular history attached to this emblem, apart from its unconscious significance.



The Iron Mountain's Remorse.

The Missouri Pacific and Iron Mountain is another road that repented of its misdeeds as a punster. Some years ago it was the proud possessor of a trade-mark originated by a gentleman whom we will not expose, which consisted of a large steer's head, with the words, "Steer for the Mountain," placed between its horns. We understand that the discriminating steer ultimately tossed the pun off the paper, and it has not been heard from since. The present trade-mark of the company is a large red seal, with the words "Missouri Pacific Iron Mountain" in white block letters on the face of it.

The Kansas City Southern has no specific trade-mark, but it uses as a sort of motto the words, "Straight as the Crow Flies—Kansas City to the Gulf." Some time ago it had what might be called a trade-mark, for a very short time. It was a fifteen-inch rule, with a map of the whole line down it. Probably this road is the only one in the country with over one thousand miles of track that could get a map of its road on a rule.

Pike's Peak Lion.

Some years ago the Colorado Midland was familiarly known as "The Pike's Peak Route," and used as its emblem a picture of the famous mountain in a triangular space. This has recently been abandoned, and the prevailing emblem of the road now is a Rocky Mountain lion, which snarls savagely at you as you con-





template the possibilities of making the trip to Pike's Peak. The effect is startling, but artistic, and the poster which first bore the emblem was, for a number of years, in great demand all over the country. It is one of the most effective of trade-mark posters.

From an Old Freight-Car.

Shortly after Mr. E. L. Lomax, general passenger-agent of the Union Pacific Railroad Company, entered the service of that road at Omaha, as assistant general passenger-agent, the late Mr. T. J. Potter, the vice-president and general manager of the Union Pacific, asked him to get up a trade-mark for the Union Pacific Railroad that would convey an idea of patriotic association with the government, using the national colors—red, white, and blue.

Mr. Lomax, during his search for something suitable, saw a shield on an old freight-car which was altogether different from anything that he had ever seen in the shape of shields, and it occurred to him that, with proper changes, a good trade-mark could be worked out of it.

He had about a hundred sketches of different forms of shields drawn, and finally selected one that did not conflict with any other shield, national or otherwise, of which he could get a record. He had the upper corners cut off and the



body widened and a point drawn at the bottom, and thirteen stripes, alternately red and white, shown in the body, and a blue background with white letters at the top.

This was at once approved and adopted.

Later Mr. Lomax wanted to work in the words, "The Overland Route," as that was the old name of the Union Pacific, and this was done in the shape of a legend at the bottom and outside of the shield; but, later, he concluded to show this in the center of the body of the shield within a narrow parallelogram and a ring. Then he added, at the bottom of the shield, "World's Pictorial Line," which was later eliminated.

When the shield was first worked out, the parallelogram extended diagonally through the middle of the shield from the right at the top, to the left at the bottom. This, however, was changed later to run from left to right.

The time consumed in working out the various changes, in accordance with ideas which occurred from time to time, was in the neighborhood of one year.

These brief descriptions do not cover, by any means, all the interesting or romantic devices of railroad heraldry, but they are sufficient to show the reader that there is being built up a very large and very significant system of emblems and trade-marks to float over the argosies of the rail, each peculiar and representative.



A LONG SHAVE.

LA JUNTA again appears with an achievement out of the ordinary. In fact our correspondent there claims that Tom Allen has peeled with his lathe the longest steel-shaving on record, the same being 151 feet in length, with the outside diameter of the curl $1\frac{3}{4}$ inches, thickness of the shaving 3.32 of an inch, and the depth of cut 9-16 of an inch. It was turned from the axle of an old 507-class locomotive.

We are sorry to disappoint the La Junta boys, and it is possible they may be

able to stretch that shaving so as to successfully claim the record, but in April, 1908—as will be seen by reference to the issue for May, 1908—Frank Shively of Cleburne, Texas, turned from a driving-axle a chip 151 feet 8 inches long.

So there you are. Possibly, with true La Junta generosity, the man who measured that shaving threw in the odd inches and only claimed 151 feet. At least La Junta had Cleburne "going some."—*Santa Fe Employees' Magazine.*



ON MARSHALL PASS.

BY CY WARMAN.

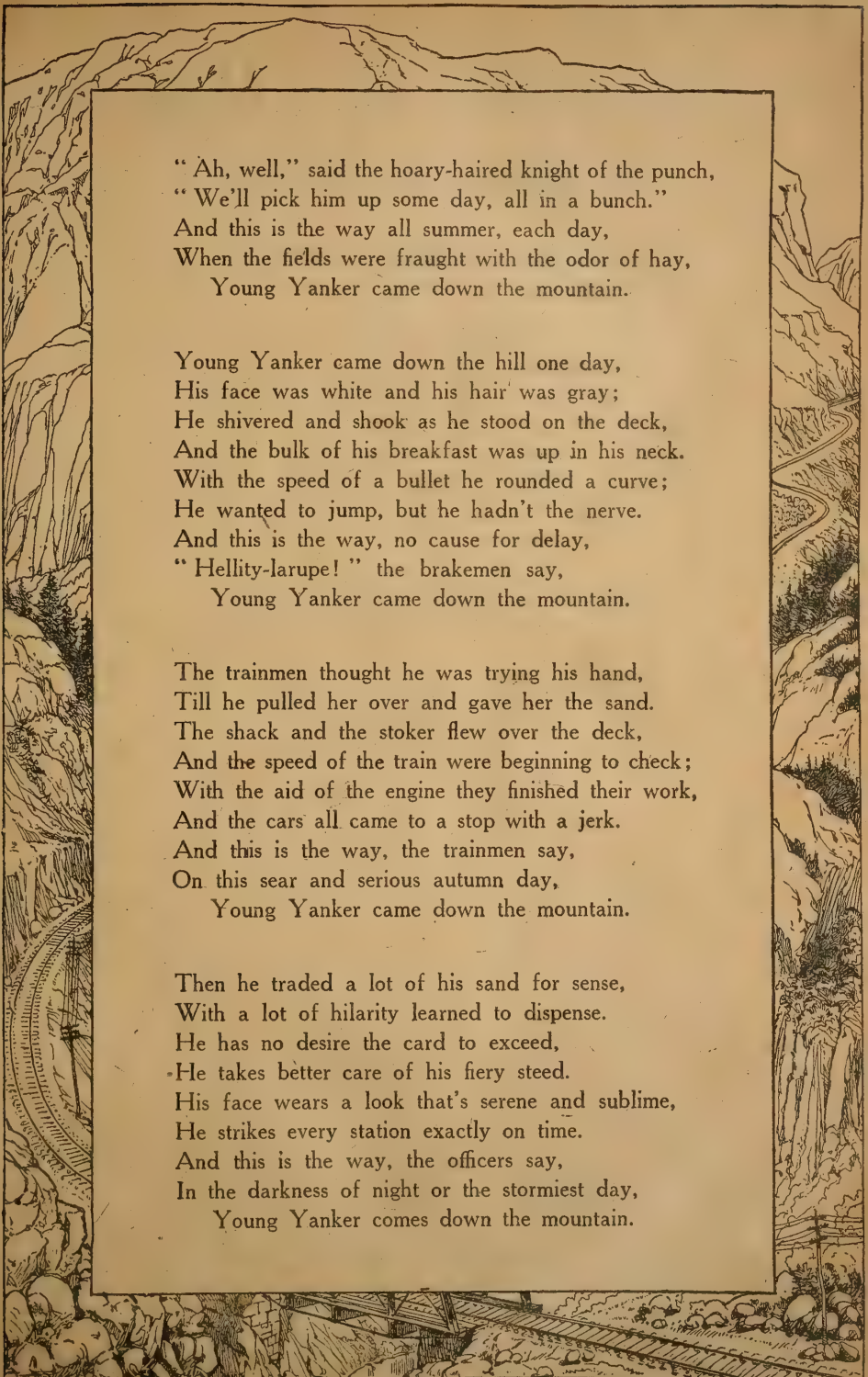
Written for "The Railroad Man's Magazine."

YOUNG YANKER came down the hill one day,
And the wind could hardly keep out of his way;

The air was good and the brakes were set,
And he waddled his head with a "You can bet
That I am a brave young engineer,
Never see nothin' that looked like fear.
And this is the way, the brakemen say,
When the birds were singing one morn in May,
Young Yanker came down the mountain.

The station-agent flew out at the door
As the train went by with a rush and a roar,
Saying, "Young Yanker's exceedingly flip,
He must be making his maiden trip."
And then, after showing how fast he could run,
He'd pull the whistle for brakes, for fun.
And this is the way all summer, each day,
A little too sudden the "soop" would say,
Young Yanker came down the mountain.

The shack and the stoker would congregate,
And the youthful conductor would then relate
How the old-time runners would take it slow,
And this daring young driver would let 'em go.



"Ah, well," said the hoary-haired knight of the punch,
"We'll pick him up some day, all in a bunch."
And this is the way all summer, each day,
When the fields were fraught with the odor of hay,
Young Yanker came down the mountain.

Young Yanker came down the hill one day,
His face was white and his hair was gray;
He shivered and shook as he stood on the deck,
And the bulk of his breakfast was up in his neck.
With the speed of a bullet he rounded a curve;
He wanted to jump, but he hadn't the nerve.
And this is the way, no cause for delay,
"Hellity-larupe!" the brakemen say,
Young Yanker came down the mountain.

The trainmen thought he was trying his hand,
Till he pulled her over and gave her the sand.
The shack and the stoker flew over the deck,
And the speed of the train were beginning to check;
With the aid of the engine they finished their work,
And the cars all came to a stop with a jerk.
And this is the way, the trainmen say,
On this sear and serious autumn day,
Young Yanker came down the mountain.

Then he traded a lot of his sand for sense,
With a lot of hilarity learned to dispense.
He has no desire the card to exceed,
He takes better care of his fiery steed.
His face wears a look that's serene and sublime,
He strikes every station exactly on time.
And this is the way, the officers say,
In the darkness of night or the stormiest day,
Young Yanker comes down the mountain.

A HEART OF THE NORTH.

BY GEORGE VAN SCHAICK.

The Plight of a Man Alone in the Wilderness with a Beautiful Maid.

SYNOPSIS OF PREVIOUS CHAPTERS.

PIERRE, a young French-Canadian with Indian blood in his veins, while hunting and trapping in the Canadian woods rescues Anne Marie, a young Indian girl, and her old father, whose canoe has been upset and demolished by a moose. Father and daughter are badly injured. Pierre takes them to his tent and cares for them, but the old Indian is so seriously hurt that he dies, and Pierre is left with the girl on his hands. A half-breed and an Indian appear at the camp. It turns out that this half-breed, Simon, who was the husband of Anne Marie's sister, but who, through his brutality, has killed his wife, is in love with the girl, and tries to make Pierre give her up. This Pierre refuses to do, and the girl and he scheme to escape in the canoe. It seems impossible, and, finally, Anne Marie, whose injuries are very painful, endeavors to make Simon swear on the grave of her father that he will protect her and take her to the home of her cousin, Antoine. Simon promises, but refuses to swear. He insults Pierre, and a fight ensues, in which Pierre succeeds in felling the half-breed and, with the help of the girl, binds him. Anne Marie, after damaging Simon's canoe in such a way that it will take some hours to mend, helps Pierre and the Indian to pack their canoe, and she and Pierre start up the river, leaving the Indian, who has shown very little interest in the happenings, to return and release Simon.

CHAPTER V.

A Battle of Giants.

IT was very early when Pierre awoke. Paddy had nestled up against the girl. As soon as his master moved he opened one eye, wagged his tail, and, finding himself perfectly comfortable, remained where he was.

It was quite chilly and still rather dark as the young man threw off his blankets and made his way to the upper end of the little island. There he sat upon a rock among the little scrubby firs and spruces growing in the scanty soil that had gathered in the crannies between the boulders, gazing intently up-stream.

To his right the sky was becoming clearer with the bluish-green tint that comes before the sunrise, and yellow pencils of light appeared and disappeared, so faint and hazy that they could hardly be appreciated.

Due north, where he watched the river, there was an uncanny aspect of darkness relieved only by the few faint streaks upon the water. Some old pines that had been blasted by lightning stood like gaunt watching giants, just limned in black upon the dark sky; the white-trunked aspens and the whiter birches gave clear notes that stood out upon the background of blackish green of the hemlocks, spruces, and firs; and the whole, as ever in the north, looked weird, full of many portents, pregnant with perils, yet imbued with a somber greatness and strength that lent a glory to the world of cold and hunger.

To his left the water was swiftly passing, deep but foam-flecked; over the dark surface, extending to the cliffs of the shore that was only just becoming visible, faintly suggested, like some visionary land.

The young man felt a sympathy for the strange beliefs that had arisen in Indian minds. He saw how natural it was

that the generations passed and gone had peopled the wilderness with windegoos and things of evil, and had seen, in the dark brown waters, river men and women whom it was ill-luck to molest, and had filled the forest with spirits of the wild things they hunted.

They hung the skulls of animals upon saplings cleaned of bark to propitiate their ghosts, and begged pardon of the bears, moose, and beavers they killed.

But the sky was growing lighter. New tints succeeded one another in the sky, and things could be seen more plainly. An old shell-drake left the rushes on the edge of the mainland to the right, followed by her brood of nearly grown ducklings. A couple of bitterns came along, in slow, ungainly flight, looking for fishing-grounds. Now and then a fish leaped, his rise making great rings upon the water.

Pierre began to shiver with the cold of the early morning, which can be dispelled only by a brisk camp-fire and a cup of hot tea. The world was so still that he was startled when, quite noiselessly, Anne Marie appeared beside him. Paddy had reluctantly arisen, and could be heard foraging about in the brush. He must have caught a glimpse of some fleeing squirrel or muskrat, for he gave a sharp bark.

"*Bonjour*, must tie the dog," said the girl.

"*Bonjour*, Anne Marie. I'm afraid he won't like it much. Still, I suppose that if those fellows pass by and see him on the island, it won't quite agree with your plans."

So he called the dog, and with his tump-line tied him near the place where they had slept. Then, in a great crack between two titanic rocks, he lighted a tiny fire and quickly boiled the kettle. As soon as this was done he put out the fire and went back to where Anne Marie had taken his post as a sentinel to watch the river.

"Go back and eat," he told her.

"Have you had your tea already?" she asked.

"Why, no; not yet. Go on, and come back when you have finished."

She was about to object, but he made a somewhat impatient gesture, and she turned away in silence and left him.

She had been gone but a few minutes when, far up the river, his eye was caught by some hardly discernible thing that no one unaccustomed to the woods could have noticed. It was a bit of a moving speck, faint against the dark background of the rocks, but he knew at once what it was.

He ran back to where the girl was sitting.

"They're coming!" he cried.

He pounced upon his gun, and took it out of the cover that had been put over it for the night. The magazine was kept full, and he had several cartridges in his pockets.

Anne Marie had risen quietly. Together, they returned to the place from which they had watched. Lying down among the low bushes, and hidden by the rocks and the saplings, they had no fear of being seen.

"The water is deep on that side; they will keep close to the shore. The nearest place where they will pass is far."

"Yes," replied Pierre; "it is all of a couple of hundred yards."

"Too far to shoot and make sure," she commented.

"Yes, though I could hit the canoe, all right. But I'm not going to start the shooting."

"They will go on as far as the next portage. It is ten miles down, and they will look for our tracks. Then they will hunt carefully to see whether we have passed by the other shore or farther up in the woods."

"And when they find nothing, they will come back," added Pierre.

"Yes, but they will be very careful. If they are sure they have passed us, they will know that we saw them go by."

Their conversation stopped, and they watched the canoe, which was nearing them swiftly. It kept in the shadowy water at the foot of the eastern shore, and came along without a sound. Simon was at the stern and the Indian in front, and, like machines, their brawny arms were driving the birchen shell.

Pierre was a good enough canoeman to be able to realize that those two were masters of their craft.

Shortly before reaching a place just opposite their little island, they stopped paddling, and the watchers felt their

hearts beating a little faster; but the two men only changed paddling sides and shifted their positions ever so slightly, and then went by the island, farther down, and yet farther.

When Pierre and the girl reached the lower end of the island, they just saw the men disappear around a far turn of the river.

Anne Marie went back to their little camp, followed by Pierre, and let Paddy loose, to his delirious joy.

"He can run now," she said.

Pierre, who had not yet eaten, began his breakfast. The tea was cold, but he warmed it up again and drank the bitter stuff with no thought that it was anything but hot and tasty.

"What's the next thing to be done, Anne Marie?" he asked.

"We can stay here, or we can start at once," she replied. "There is a place farther on, at the rapids, where there are many rocks. We might be able to hide ourselves and the canoe there; and if they return and do not see us, we will start down and hurry off while they are hunting for us farther up."

"It seems to me that we might just as well stay here and do the same thing," said Pierre.

"Yes, we are better hidden here," answered the girl; "but it is the only island on the river between these portages. They will suspect every such likely place. They might hide and watch it, then they would follow as soon as we started; or, if they had made sure that we were here, they might come at night."

"The dog would bark," suggested Pierre.

"Yes, but it would be we two against the two of them, and a fight. Some one will be killed. It would be a fight very near, where their guns are as good as yours. We had better go."

So once again they packed their things and were floating down the swift river. But this time Pierre kept the gun beside him, and the girl held her paddle, ready to help in case of need.

She sat in the bow, with her back turned to Pierre, keenly watching the expanse before her; and he, to his surprise, caught himself noticing how well poised the little head was upon her slender neck.

He dug his paddle in the water vi-

ciously, feeling very fit and well; and in less than half an hour they reached a broad, rapid place where the water was split into scores of little torrents by the boulders that everywhere dotted the stream.

From a high cliff on the left shore tumbled a tiny waterfall that splashed into the river, and a jumble of great rocks near this offered opportunities for concealment.

"That's the place, Anne Marie. It will be easy to hide there. It looks all right."

"No," she answered; "the water from that little fall is very cold; they will go and drink there. The other shore."

So the canoe was pushed over to the other side, perhaps a hundred and fifty yards across, and Pierre pulled it behind some great flat boulders. Paddy, to his great chagrin, was not allowed to wade ashore, and his indignation knew no bounds when his master, with a piece of string, made a muzzle for him so that he could not bark.

In a minute, however, after being well scolded he desisted from his attempts to remove it, and settled down sulkily in the bottom of the canoe.

"I don't think we are very well hidden here, Anne Marie," objected the young man.

"Not very well; but when they come up, the current is strong, and they will have to use their poles and pay much attention to their canoe.

"They will pass near the other side, to go by the little waterfall for cold water. Then they will start on again, and as soon as they get round the bend we will shoot down through the quick water.

"They will go on up-stream, hunt around for a day or so, and make up their minds that we have given them the slip. Maskoush wants to go on with their trip. They have not much time to get to the trapping-grounds before cold weather, so they will soon give it up and go on up the river."

"But the Manouan River is the real road for them, so that they may come down to the forks."

"Yes," she replied. "We must go fast now. If they decide to go by the Manouan, they will have to return to

their camp, and will have to make many journeys over each carry. We can go faster."

"Well, I hope it will work all right," said Pierre.

They waited long, both peeping from behind the great rock that sheltered them. Upon its top, in one place, grew a few straggling blueberry bushes which, in times of flood, must often have been covered with water, for they did not look prosperous on their slight foothold.

The canoe was partly in the water that passed, boiling but very shallow, under it, and was held in place by the stern, which they had lifted a little and wedged between two rocks. A push would send them flying down the rapid water and out of sight in a minute.

The Indian girl's eyes were riveted down-stream; she was motionless and untiring. As Pierre watched her he bethought himself of the behavior of wild things in hiding. He had many a time seen a wounded black duck concealed in weeds and rushes, or rabbits frozen into immobility while a dog or a fox was puzzling out a tangled trail.

He had noted all manner of beasts endeavoring to escape observation, and now this child of the *Grand Nord* revealed the attributes of the hunted things of the wilderness. The tincture of the same blood that was in his own veins had, to a slight extent, bestowed upon him some of those traits, but he realized that in him they were less marked.

His glance was diverted from time to time. He could not help following the flight of a shrieking kingfisher, or looking at the leap of a fish in the rapid water; and his attention was taken by some fingerling chubs or a band of minnows that swam by the big rock in the shade of the canoe.

He felt that the truly wild man or beast, whether hunter or hunted, observes everything except that which is of no importance; and that at certain times every faculty they possess becomes concentrated upon the one thing that means life or death.

"I'll never be a good Indian," he said to himself, as he realized that he had once more allowed his thoughts to wander, notwithstanding the fact that over there, down the river, were two men, one

indifferent enough probably, but the other hungering for his blood and searching for him.

Yet, he felt a certain exultation that was mingled with the anxiety of this time. There was sport in it; it was a contest, a game of high stakes that was being played, and he was not conscious of any real fear.

Of a sudden the life appealed to him strongly. He felt that he had an inherited place in the Great North, that he was of it, that it called to him and thrilled every fiber of his being, and that every hour spent in the forest bound him more strongly to its greatness.

An hour passed by, and then another, until the sun was at midday, and still Anne Marie remained motionless, her feet in the canoe, her arms resting upon the great rock over which she watched.

Pierre had become cramped, and shifted his position a little from time to time, while Paddy was lying still, apparently understanding that something unusual was taking place.

He had stopped rubbing his muzzle with his paws to rid himself of the encumbrance, and was asleep most of the time.

Then Anne Marie suddenly pointed to a blue heron, that was coming toward them, with long wings beating slowly and his snaky neck turning from side to side as he observed the surroundings.

"Maybe they are coming," she whispered; "the heron does not often fly at this time of day."

Before reaching them the great bird swerved a little, checked his flight, and went down among some rushes that grew on the bank, perhaps sixty yards away, where the rapid water entered the pool.

"I wish he had not gone down there," said the girl.

"You are right," assented Pierre. "If they come up they will surely scare him out of there, and if he passes over us and sees us, he will show them where we are."

Anne Marie nodded.

"Pick up a stone," she told him, "and send him away."

Pierre picked up a few stones from the bed of the stream, but before throwing them he looked keenly down-stream again. At once he crouched low in the canoe.

"They're coming," both said at the same time.

At the foot of the rapids, where the winding river formed a long, sinuous ribbon, they had caught sight of a moving object near the right bank.

"Only my head showed above the rock," he whispered. "They could not have seen me."

The girl nodded, and Pierre worked the cartridge into the barrel of his rifle.

"I see them again," said the girl; "they are coming around the little point. They travel fast. I wish that big bird was away. He is an evil thing."

"Yes, he's a windegoo," said Pierre.

Anne Marie crossed herself. She did not like the mention of the Indian evil spirit's name at such a time.

Now and then the canoe would become lost to view, but when it reappeared it was always a good deal nearer. They were clinging to the shore.

Simon was ahead this time. He was in the best place for careful observation. Finally they reached the swift water at the foot of the pool, and the half-breed arose and took a long look, while the Indian, with his paddle dug into the bottom of the river, held the canoe in place; then he squatted again, and they drove their craft into the boiling water.

But a few yards were covered before they had to take to their poles, discarding the paddles.

Suddenly the blue heron, with a clatter of wings, arose and came up-stream in a course that would bring him directly toward the two that were hiding. A few sweeps of his pinions, and he was over them. As they held their breath he suddenly rose in the air with a cry and changed his course.

Simon and the Indian were then nearly opposite them, shaping their course toward the little waterfall. Pierre and the girl saw them pause at once, their poles ground among the rocks at the bottom of the rushing water.

For a few moments they spoke excitedly, and the half-breed, still holding his pole firmly with one hand, shaded his eyes with the other and looked in their direction. They were well hidden, and he could see nothing; but he pointed toward the rocks, and began pushing the canoe in their direction.

"The gun," exclaimed the girl. "It is his life now, or ours."

"I can't kill a man that way," retorted Pierre. "They're coming to see what scared the heron. I'm going to show myself, it is time."

He rose in the canoe, showing his head and shoulders above the rock, with the gun pointed at Simon.

"Stop, or I shoot!" he called loudly.

The men were evidently somewhat taken by surprise; they stopped poling, and two or three violent words were uttered. They were at a distinct disadvantage standing up in their canoe, which a wrong move would upset.

Pierre was almost entirely concealed and had his rifle ready, while their weapons were lying in the bottom of their canoe, which began to drop back.

"Keep on up-stream, or I'll kill you!" shouted Pierre, who did not want them to get below him again.

Simon shook his fist at him, but obeyed, realizing that some part of his body was constantly seen by Pierre in the notched sight of his gun, and that, at this short distance, he could not be missed.

The iron-shod poles rattled again on the stones at the bottom of the river. They disappeared around a bend, while a supreme contempt came into the half-breed's mind for the man who had held his life in his hands and had been too stupid to shoot.

"He will land and try to get at us from the bushes," cried the girl. "*Vite, partons.*"

The bend in the river beyond which the men had disappeared was hardly a hundred and fifty yards off, and haste was necessary. But the canoe was jammed rather hard at the stern between the two rocks, and Pierre had to jump overboard and lift it clear.

Paddy, seeing his master leap out, proceeded to follow his example, glad to stir after his long rest, but he slipped on the wet surface of the tiny rock upon which he had sprung and fell in the quick water.

In a moment he was being carried down stream.

"Quick, we must save him!" cried Pierre.

Like a flash they were after him, but the canoe grounded in passing over a

shoal. They pushed the canoe back with their paddles, in an effort to get to one side of the obstruction. Straining hard, they backed a foot or two, losing valuable time, and, with a hard shove, got into deep water again.

"It is my fault," cried the girl. "I was looking at the little dog, and did not notice the sunken rocks."

"Never mind," cried Pierre, "push on quick!"

From the shore, near by, a shot rang out, and a bullet grazed Pierre's body, passing through his coat. A second one followed at once, but, fortunately, also missed him.

The loud booming report told Pierre that it must have been the shotgun loaded with round ball.

He grasped his rifle, while Anne Marie, from the bow, sought to keep the canoe straight; but in the thick bushes he could only see the thin cloud of smoke. With one hand he tried to steer, knowing it would take some time to reload the muzzle-loader, and hoping that the Indian would not shoot.

But the sharper and less powerful report of the Hudson Bay Company's gun rang out, and the bullet struck away beyond them in the water.

Something then moved in the bushes. The half-breed, wanting to get nearer for a shot, had left the cover, and came running to the shore. The rifle in Pierre's hands gave the spiteful bark of its smokeless powder, and the half-breed, after two or three more steps, pitched heavily forward and rolled over on his side.

Then it was that the wild nature of Anne Marie came uppermost. She uttered a cry of joy.

"Quick, get at him!" she cried.

"Nonsense!" Pierre shouted angrily. "Look out for the dog!"

Paddy had fortunately drifted, half-drowned, near a bit of sandy beach, which he had managed to reach, and stood there shivering. He was picked up, and his muzzle was taken off at once. They jumped ashore then, and Pierre stood irresolute and nervous.

"I never shot at a man before," he said.

"Let us go and see," proposed the girl.

"What about the Indian?"

"I think Maskoush wants no fight. He shot because Simon ordered him to. Did you not hear him cry out? But the bullet went far above us. Little Bear shoots well; best shot in Pointe Bleue; he shot high on purpose. I will call out to him."

Anne Marie called out loudly, and an answer came. Stepping carefully, they advanced, concealing themselves as much as they could, and soon Anne Marie threw herself down behind a rock, while Pierre instinctively followed her example.

The dog, now fully recovered, ran forward and began to bark loudly.

"He is there, Simon, half a gunshot away. He was sitting up. Come a little farther. There—you can see him. Aim the gun at him, and I will speak. See, his gun is on the ground, too far for him to reach."

She shouted to Simon, but he made no answer. The two then advanced, and saw that he held his head in his hands, as though suffering great pain. At this moment Maskoush came up.

"Put down that gun," shouted Pierre, with a significant motion of his own rifle.

The Indian laid his gun down at his feet, appearing to be very indifferent, and Anne Marie went up to him and possessed herself of the weapon.

Simon was recovering from his dazed condition, and loudly, from the bottom of his heart, consigned them all to perdition.

"Stop that!" cried Pierre indignantly. "Where are you hurt?"

"I am not hit," answered the half-breed contemptuously. "After you shot, I caught my foot between two stones and fell. I hit my head hard or I would have been up again, and I would have killed you, *maudit*."

"Well, I'm just as glad it happened that way," answered Pierre, who saw that blood was trickling from the man's head where it had come in contact with a stone.

"What shall we do now?" Pierre asked the girl.

"Smash both their guns and leave them where they are," she replied contemptuously.

"But if they have no guns, they will have to go back to Lac St. Jean; they

can't go trapping without them," objected Pierre.

"The *monsieur* says well," muttered the Indian. "We must have the guns."

"Look here, will you swear to leave us alone this time?" asked Pierre of the half-breed, who had risen unsteadily to his feet.

"Nothing—I will swear nothing," he answered furiously. "You can strike hard with your fist, but that is not our way of fighting. You have the gun and can shoot me if you like, but I swear nothing."

"You are a coward. You can speak to a man with a gun in your hands, but if you did not have it you would cringe before me. You are going away with that woman."

"She would have been mine if you had not been here. You are a thief! You steal my woman! You would be afraid of me but for your gun! Yes, afraid! For I am a man, and you a stealer of women!"

Pierre, unable to stand this any longer, threw his gun in Anne Marie's hands and threw himself upon the half-breed, who, like a flash, pulled out his knife.

Anne Marie called out a warning, but the men were already locked together. Pierre had succeeded in seizing Simon's wrist in his left hand, while his right arm was twined around the hulking body.

The struggle for the possession of the knife was paramount. They twisted and pushed, and stumbled over the rocks, and panted with their exertion, while Paddy kept circling around them, barking and snarling, and looking for a chance to bite.

Once his fangs sank in the half-breed's boots, but the heavy leather protected him.

Twice Pierre was nearly pushed over on his back, but succeeded in keeping his footing until the half-breed suddenly disengaged the arm he had managed to get around Pierre's neck and seized him by one thigh, which he wrenched upward.

With his full weight bearing upon the young man, breast to breast, they fell over, but Pierre, by a vigorous twist of his body, escaped the full shock of the fall. At the same time, with his right hand, now free, he aimed a fearful blow at the half-breed's jaw.

They fell upon their sides, neither one underneath, and Simon's elbow struck upon a stone and his hand opened, dropping the knife.

Like a tigress, Anne Marie pounced upon it and sent it flying in the rapids. But now Simon got both his arms around Pierre's body, and his great strength told.

The pressure was more than a human being could stand, and the young man felt his breath becoming shorter. A fierce pain invaded his chest like the stabbing of great knives, and he knew not whether it was a harbinger of death.

But the spirit of fighting forebears was in him, and he struggled on. Somehow his right arm got loose and, with the last of his breath, while both were lying on the ground like snarling hounds, he rained blows upon the half-breed's face, who loosened his grip around Pierre's body.

With another struggle, the young man wrenched himself free, and in a moment they were both again standing, watching each other, the fury of their faces nearly gone.

Their panting breath, the half-breed's bloody head, their haggard looks, their eager, wolfish eyes, made them look like brutes bent on slaughter.

Simon thought he saw a good chance and threw himself upon Pierre, seeking to catch him low, but he forgot the ready fists of his opponent, and as he dashed forward he was met with a fierce uppercut that staggered him.

In a moment Pierre was on him like a fiend and back-heeled him, and the huge bulk of his enemy was stretched under him.

The massive throat was in the grasp of his left hand, and his right fist was uplifted for a blow as the half-breed gurgled:

"Quit, for the love of Heaven!"

Pierre arose, his clothes torn and soiled, his chest heaving as if the breath would never return to it in peace. The filth of sand and moss and grit and sweat was upon him, and his limbs shook with the exhaustion of his nerves.

The weariness of age-long fighting seized him, as if he had gone through all the fierce turmoil that may be compassed in a whole life. But when Paddy threw himself upon the half-breed he ordered

him off, and pulled him away by the scruff of his neck and bade him be still.

During this time Anne Marie, excepting when she had taken away the knife, stood still, watching the battle that might mean her life as well as Pierre's.

Maskoush followed the fight eagerly, with the lust that comes to men who see great strife, but did not offer to take any part in it, realizing that the girl, with the gun in her hand, was dangerous.

For a minute they were silent, as people are who have been through fierce scenes of action. Finally the young man spoke:

"We have had the fight. It is over. I want to go back to Lac St. Jean, and Anne Marie goes with me. In the rapids I could have killed you, and again just before this fight. Among my people men fight great fights, and they shake hands after, and it is forgotten.

"I will shake hands if you wish, and you will swear to leave us in peace. If you are not willing to do that you will compel me to break your guns to pieces and to burn your canoe before I go, so that you cannot follow. Now, will you go in peace and let us alone?"

The half-breed looked at him, then at the girl, and at his companion.

"I am beaten," he finally said. "I will not shake hands with you. What do you want me to swear?"

Pierre, still short of breath, seriously, under the spell himself of the strange wildness of the scene, began to draw from the wealth of his imagination a long and complicated oath that was listened to in awe by all the others.

"Now you have heard, and you will repeat after me," he said.

The men had instinctively removed their caps, and Simon began the oath that was to bind him.

Upon his prospects of future salvation, and upon the rest of nearest and most remote relatives and ancestors in and out of purgatory, he obligated himself to all manner of future punishment should he break his oath to go back up the river to his camping-grounds, without stopping or returning, until the spring should come.

This he did in the name of the Lord and all the saints. The girl and Maskoush looked awed to hear him take so solemn an oath. When this was over Pierre bade the girl repeat it to Maskoush

in his own language, so that he should well understand it, as he spoke French but ill.

Crossing his hands upon his scapulars, the Indian repeated the binding words also, looking scared at the dread formula.

"Now, will you shake hands?" said Pierre.

The half-breed shook his head.

"I will. You brave man," said the Indian.

A hearty handclasp was exchanged by the two men, and then Pierre and the girl quietly returned to their canoe, followed by Paddy.

They said nothing as they entered their frail craft and pushed off. They paddled a mile or two before speaking.

"Look here, Anne Marie, stop paddling," said Pierre suddenly, realizing that she was working too hard.

As always, she obeyed without a word, and sat in the bow, facing him, and only then he realized how bad she looked. There were great black rings under her eyes, and she was thinner, and he understood what a strain she had undergone during these days and how she had suffered.

"Will they keep their oaths, Anne Marie?" he asked.

She looked scared at his question.

"Keep them," she answered. "Yes, how could they do otherwise? A man might kill, and he might rob, even rob a *cache*, but how could a man break such an oath?"

Pierre nodded his head in assent. They were savages, and the forms of religion were, as ever with them, of greater import, and bound them more powerfully than its spirit.

As he kept on paddling Pierre grew aware of a constantly increasing weariness. He was sore all over, and his chest, that had undergone the bearish hug of the half-breed, pained him badly.

Over his body there were bruises resulting from coming into contact with stones while struggling on the ground, and the excitement of it all had left him nervous and, in truth, somewhat disgusted.

"We were like a couple of brutes," he suddenly thought out aloud.

"You were like the bulls of the *orig-nal*, the moose," spoke the girl; "and it

was fearful to see, but a great fight, a fight of strong men, for you are brave and strong and a man from among men."

Pierre looked at her curiously, wondering whether she meant what she said. Her great eyes were gazing at him frankly, and he wondered at feeling comforted by her words, by the admiration implied.

Their common danger, their few days spent together, seemed to have thrown a slender bridge over the chasm that separated him from that little creature, whose dusky skin, whose very rags and poverty could not hide a personality strange to him, but full of interest.

He felt tired, but kept on, doggedly, his exhausted muscles laboring mechanically. His efforts caused the canoe to gain but slightly over the swiftness imparted by the current. His mind was also weary and his thought stopped coming, until he toiled like an automaton.

CHAPTER VI.

A Hospital in the Wilds.

IT only took them a little over an hour to reach the next portage. However confident they were that pursuit was no longer to be feared, it was best to take every precaution. Anne Marie took the gun and watched the river while Pierre unloaded the canoe. But as soon as he had done this, and had lifted his little craft clear of the water, his weariness and soreness overcame him.

"Look here, Anne Marie," he said, "that fellow mauled me dreadfully, and I'll have to take a bit of rest."

Under some little birches near the landing he lay down upon the mossy soil and mechanically began to fill his pipe; but exhausted Nature had her way, and he fell asleep, dropping both pipe and tobacco-pouch.

Anne Marie sat near him, her chin in the hollow of her left hand, the elbow resting upon one knee, while in the other hand she still held the rifle.

Every minute or two, without changing her position, she glanced up the river; but during the remainder of the time her gaze was fastened upon the young man.

To her he was a great being, something akin to the gods of her ancestors, possessed of strange powers, fierce in

battle, and yet so mild in manner, so lacking in the real knowledge of what to her was life itself, that she looked at him in awe. He seemed to belong to some race of which she had never before heard.

Then she remembered what the Manitou-ilno, the sorcerer, had told her away up in the north, and her heart seemed to beat faster.

She understood that Pierre was exhausted with fatigue, with the blows and hugs he had borne; but she wondered why he had seemed nervous, and at the disgust that seemed to have taken possession of him after the fight.

The girl watched him long, until hunger awoke him, and he smiled at her.

"I had a little nap," he said.

"You have slept two hours," she replied, smiling also.

He jumped up, and in so doing realized once more how bruised he was; but the great weariness had left him, and now it was but a matter of a little pluck.

"Boil the kettle, Anne Marie," he told her, "and in the meanwhile I'll make one journey."

He lifted a great load to his shoulders and went down the portage, which was quite a short one; and repeated the trip four times, until he had carried everything over excepting the rifle and the few cooking utensils the girl was using.

They sat down and began to eat, Pierre with exceeding appetite, but the girl half-heartedly. She gave most of her food to Paddy, who kept turning around them expectantly, as usual, during meal-times.

When they had finished she arose, and Pierre took the rifle and the cooking things, starting again down the carry, and followed by the girl. He did not notice that she was walking with much difficulty, as if in great pain.

So they started again, on a long stretch of smooth water, some eighteen miles long, to the next carry, not expecting to make the whole distance before night, and intending merely to go as far as possible until it should be time to camp.

The unending digging into the water began again, and they traveled on and on in silence. Anne Marie, sitting in the bow, gradually sank farther down at the bottom of the canoe, until her head rested upon one of the bags.

She no longer watched the river; her eyes closed, and she appeared to become indifferent to her surroundings. Pierre would have thought her asleep had she not kept her hand upon the injured side. From time to time she moaned.

"Do you feel very badly, Ou-mem-eou?" he asked.

She shook her head, unwilling to acknowledge her pain; and he continued to paddle, stopping now and then for a swallow of water or to light his pipe. The river had to be crossed from time to time, to make short cuts at the windings, or to take advantage of swifter water, or in order to avoid the shallow sand-bars that are common to all the rivers of that region.

The great northland was ever opening and closing behind them, while the sky on their right showed the changes of hue that bespeak the coming night.

Pierre began to look carefully along the bank, watching for a good place to make camp.

By this time he had his second wind and was working well, in a dull, mechanical fashion. The dripping of the paddle tinkled beside him, a pleasant, companionable sound, and the dog looked at him wistfully.

Nearer and nearer the poplars and birches, the firs and spruces kept on coming, and then marched past to make room for others. Yellow sand-banks grew to the tender green of rush-lined shores, and these gave way to rocky places; and again to others where the gaudy tints of deciduous trees, touched with autumnal gold and crimson—with somber backgrounds of evergreens—came right down to the water's edge.

Little shrill-voiced sandpipers made circular flights from rock to rock ahead of him; and once he passed a monstrous horned owl, perched on a great hemlock, awaiting the time for his silent flight in the dark forest.

The sunset was a flash of red and gold tinting the edges of dark clouds on the horizon when Pierre noticed, in a deep indentation of the shore, a level spot with a tiny brook running down into the river, and plenty of dead trees for firewood. With a sweep of his paddle, he turned the canoe and led it to a tiny sandy beach.

Paddy, as usual, jumped out first in his delight at being able to stretch his legs once more; and Pierre followed, holding the canoe for Anne Marie.

When he called her, thinking that she was asleep, she did not answer, and he pulled his craft a bit higher up on the sand.

"What is the matter, Anne Marie?" he asked.

She shook her head and made an effort to arise; but fell back helpless. Pierre lifted her out and placed her carefully upon a mossy spot.

He put the bundle of blankets under her head for a pillow, and, kneeling beside her, felt her pulse and looked at her anxiously.

She was very wan and pale, excepting her cheek, where red spots were burning. She breathed very hard, with short, gasping respirations. Her hand was ever on the side that had been hurt.

"There must be something the matter with that lung," he told himself. Then it was that he longed for greater knowledge of medical things, and considered the situation with great anxiety.

It was too bad. He wondered whether she was mortally ill. During all this time she should have been quietly resting, instead of undergoing the hardships of the past few days.

Perhaps rest would get her well again. But a few hours ago he had thought that all was serene, that all troubles were ended, and now it seemed as if they were just beginning. He had felt full of confidence before this, but now looked at her with all the helplessness of a strong man before a weak and suffering woman.

"I'd better get to work," he muttered.

The display of energy gave him some surcease of worry. He rapidly put up the little tent, tearing up some shrubs to make a level place and knocking hummocky spots with the back of his ax to make a smooth floor.

Then he spread his waterproof sheet on the ground, after it had been covered with a thick layer of balsam-boughs. Taking the blankets from under the girl's head, he replaced them with a bag, and spread them under the tent.

With the dusk of coming night there was a flurry of strong wind, and the leaves began to fly over the river, while

overhead black clouds were traveling fast. Out upon the river dark flaws struck the surface, and the chilly breeze made him put on his coat. The autumn in these regions is but a short transition from summer to winter, and he realized that the cold days were coming.

He cut down several dead trees, and made ready a goodly amount of firewood. Thinking that the weather might turn to rain, he gathered from the trees several armfuls of birch-bark, in order to have plenty of kindling material on hand, and placed it under the tent so that it might remain dry.

It was nearly dark by the time that he had his little fire lighted and his kettle boiling. Finding that he still possessed three cans of condensed milk, he opened one of them and diluted some with hot water, thinking it might be a good drink for the sick girl.

He made her take it, holding up her head in the crook of his left elbow; and she drank it, obediently, between her gasping respirations, but without seeming to relish it much, and was evidently glad when she was allowed to recline again.

But it was necessary that she should be taken to the tent, and he lifted her as gently as he could, while she feebly protested that she could go by herself.

He made her as comfortable as he could, and then hurriedly ate a little smoked meat and a large pancake that he cooked in his frying-pan, resolving that on the morrow he should make bread.

Now that he might be detained by the girl's illness, the state of his flour-bag had become a matter of some concern. It contained about fifty pounds at the start, and he had used ten or twelve pounds at least.

That which remained would not last very long for two people and a dog. At the rate of two pounds a day for the three, there was only enough for about three weeks. The other provisions were about at the same rate, though there was rather an excess of tea and tobacco, which he had taken in view of possible gifts or exchanges with Indians.

Fortunately, he had plenty of moose meat, and, by the light of his camp-fire, he took it out of the bags and inspected it carefully.

One piece was rather mildewed, and he threw it away. Then he made a great *boucan* and smoked the rest of it strongly again.

On the morrow he would take a careful survey of the provisions. It was evident that the girl would not be able to travel for some days, even if her condition had improved a good deal by morning.

A period of rest might do a great deal for her.

His activity and the appeasing of his hunger caused him to see things in a more favorable light. Somewhat against his better judgment he persuaded himself that Anne Marie's troubles would prove but a temporary matter.

His pipe once finished, he gathered up all his belongings that might be injured by rain and placed them under the tent. He had made a roaring fire, just for the pleasant companionship of the blaze, and, with the flaps turned up, the tent was well lighted inside.

Paddy had gone to sleep curled up against Anne Marie. The tent had no opening for the stovepipe, and he planned to make one and line it with pieces of tin flattened out from some of his cans.

Then they would be able to use the little stove in the tent, for there was no doubt that the cold weather was coming soon.

He asked the girl if she would have more milk, or any other food, but she refused, gently shaking her head. She seemed to be in such pain that he searched through his little case of medicines. Finding some Dover's powder, he gave her a couple of tablets, which she took with the sublime faith of the savage in the white man's medicine.

They appeared to quiet her, and after a while her breathing became more regular, and she appeared to fall asleep.

Pierre decided that he had earned his rest. His sore muscles rebelled at every move, and he was glad to roll himself in his blanket after closing the tent flaps.

Just then he heard the rain-drops beginning to patter on the tent walls; and the faint hissing of the dying fire outside, as the shower began, was the last sound that he noticed.

In a moment, as it seemed, the world became a blank, and he was sound asleep,

while, outside, the rain gathered strength and soon fell in torrents with occasional lulls, during which the wind blew harder and shrieked through the tree-tops, coming from the northwest, and bringing with it hints of snow and ice.

He had told Anne Marie to awaken him in case she needed anything, yet, though the girl slept but little, she was suffering less, owing to the opiate he had given her, and bore her pain quietly, without disturbing him.

She was a stoic, this girl of the north-land, and belonged to a people who pay small heed to bodily ills, which must be borne without complaint at night, for the rest of others may not be broken on account of grief or suffering.

In her disturbed consciousness, the man who rested near her took the proportions of some strange and visionary being, with a manner that was new and odd and proclaimed him to be of a different race—of a kind far remote from her own, like the strange beings pictured in the images of saints and other people whom one must worship without pretending to understand.

He was masterful and very strong, and yet sought advice from her in a way that seemed hardly fitting, and showed respect for her opinions, as if she had not been a mere woman, a carrier of burdens, one inured to the idea that man is the master and king, and woman but his slave.

His deference to her did not seem like the normal conduct of civilized beings; for she knew but little of the life in the places where the forest exists no longer. To her innocent mind it rather appeared as if constituting a quality inherent to that one man who, in that as in other things, was exalted beyond all others.

Nor did it seem to the girl that the two of them, traveling thus together, formed a strange and unconventional partnership. She was accustomed to the promiscuity of Indian tent-life, and saw nothing in it to cavil at.

It must be said that Pierre, on his part, had hardly given the matter a thought. He had been led by a kindly and impulsive nature. Things had adjusted themselves without any planning on his part, and merely resulted from the tragedy ever present in the northern life.

To him she was merely an Indian—one of a race so remote from him that he considered himself as standing apart and separated from her by a line of cleavage so strong and so deep that the gap could never be bridged.

She was handsome of her kind—a strong, lithe being, and pleasant withal—a companion like Paddy, a source of worry and concern, as the dog would have been if hurt—but not the tender and gentle thing his mind had evolved as a possible object of love and care.

Pierre awoke just before dawn, having slept many hours. As he rose to his knees to fold his blanket, Paddy's tail beat a tattoo, and he whined a greeting which only ceased after his master had patted his head.

The girl opened her eyes quietly, without stirring.

"How do you feel, Anne Marie?" he asked.

"I have less pain," she answered.

"Did you sleep?"

"I did not sleep much. Sometimes I did not know if I was asleep or awake. I saw many strange things. My head feels heavy."

"That's the opium," he decided.

Her pulse seemed to him to be very fast, and her forehead was cool, but the hand he had taken from under her blankets was moist and hot. She was breathing fast, and was lying upon her injured side.

The rain was coming down heavily upon the tent, but the wind seemed to have gone down. It was rather dark yet, and in the mist, as he lifted up the tent-flaps, there was but an indistinct suggestion of surrounding objects. They appeared as if wrapped in a fog through which somber masses were only hinted at.

"Do you feel hungry?" he asked her.

"Water—please give me water," she replied.

Pierre's conscience smote him. He had allowed her to remain all night without anything to drink. Her fever must have made her very thirsty, and yet she had been unwilling to disturb him.

He took up his little teakettle, and went out in the rain, toward the brook. The sky was becoming of a lighter gray in the east. During the night the tiny stream had grown into a brawling burn,

and the water was very muddy. He went to the shore for some river water.

Anne Marie drank like one devoured with thirst, and at intervals, made necessary by her short breathing, she half emptied the kettle. With a sigh of relief, she put it down, and Pierre went out to fill it again.

When he returned, she was sleeping, and he placed the vessel near her. Sitting down at the entrance of the tent, he watched the growing of daylight. It was cold, and he wrapped his blanket around his shoulders.

Paddy left the girl's side and sat beside him, shivering. This soon grew too dull for the dog, however, and it went back to sleep.

A wonderful loneliness, such as he had never before felt in the forest, came over him. There was something inexpressibly dreary in the falling rain and the misty outlook.

If he had been alone, he would have prepared his breakfast, thrown his cape over his shoulders, and started out, not heeding the rain any more than do the highlanders from whom he had partly sprung.

It would have been life, motion, effort. But this was an inactivity that gradually entered his soul. He was in a manner trapped, knowing not when the release would come.

He was here to-day, and to-morrow would see him here, and the next day, perhaps.

If the girl should die, he would have to bury her under a tree and leave her there in the coming storms and snows, and make his way back alone, with the feeling that somehow he had been given something to guard and protect, and had failed in his duty.

He should have gone farther the day before, for then he might have camped near a waterfall, and there would have been the life of the rushing waters instead of the dreary monotony of the broad river, so sad and somber under the great pall of the falling rain.

He replaced the kettle he had put by the girl by a full cup, and then brought a charred end of a log in the tent and split it up into dry sticks. After several trials and the expenditure of a good deal of birch-bark, he managed to light a fire

to leeward of a big rock, and put on the kettle to boil.

The routine of these simple preparations, which commonly gave him pleasure, seemed irksome now. It was a disagreeable duty—a sort of penance for a man of action.

Anne Marie took a little condensed milk, while he had his tea; but she looked longingly at his cup.

"Do you want any?" he asked.

She nodded eagerly, and he gave her some, which she seemed to enjoy. She refused any other food, however, and he ate without much relish, tossing bits of bread and meat to the dog, who was hungrier than his master.

This modest repast over, he took the flour-bag out of the waterproof sacks and stood it on its bottom in the tent. Rolling over the edges until they were within a couple of inches of the level of the flour, he shaped the white powder into the form of a wide funnel, into which he poured some water. He began to knead the mass, adding more water, and pushing in more flour from the sides of the bag until there was enough dough.

Then he worked in it a spoonful of baking powder, and made a big, flat, round loaf. Lifting it out of the bag, the remainder of the flour was left perfectly dry. He repeated this process three times.

Near by, upon the sandy beach, he built a roaring fire with big logs; and after it had burned some time, he dug out the sand from beneath the brazier, on the leeward side, until he had excavated a little trench.

At the bottom of this he deposited his loaves, and simply shoveled the sand back upon them. With a pole he pushed back his burning logs over the trench and added more, keeping up a roaring fire for about twenty minutes, heedless of the rain that fell upon his shoulders.

Then he shoved the blazing mass away and dug into the sand, finding his loaves thoroughly baked. They were quickly carried into the tent, to keep them dry, and then Pierre scraped them with a knife to remove the very small amount of sand adhering to them.

Whenever he came into the tent he asked the girl whether there was anything he could do for her, and how she felt, and

always she made as little as possible of her trouble and tried to smile. But the rapidity of her respirations, the moans she uttered when she thought he could not hear, her quick pulse and hot, dry skin showed that she was very ill.

He chanced to remember that people with pneumonia spat a reddish brown substance. He had seen it in the hospital, and decided that she was not suffering from that disease. He made up his mind that it was a pleurisy, and was rather pleased with himself at having made a diagnosis; and then he also had an impression that it was not as dangerous as pneumonia, though people certainly died of it sometimes.

It was important to take stock of the provisions, and he unpacked all the bags in the tent and looked over the contents. There was the flour, from which he had just taken about six pounds for his loaves, and a little more than half a can of baking powder.

The moose meat amounted to over eighty pounds, without bone. There were half a ham, four pounds of bacon, about eight of fat pork, three or four of salt butter in a tin can, and about four pounds each of oatmeal and rice, and perhaps two pounds of beans.

There was a good deal of salt, as he had taken a lot in order to prepare a scalp if he killed big game. He also had some pepper, half a bottle of pickles, three cans of condensed milk, one of them freshly opened.

He also found about six pounds of sugar and four of tea. The ammunition amounted to two boxes of rifle cartridges holding twenty each. From one of these several had been expended. There was also a box of .22 cartridges for his little pistol, used for partridges.

The total footed up to about a hundred and seventy pounds of food, which, at the rate of six pounds a day for two healthy adults, would last about four weeks. Then it was certain that for some days to come the girl would not eat very much.

"Anne Marie," he asked, "how long will it take us to go from here to the first falls of the Peribonca?"

"About fifteen days—not more," she replied.

There was plenty of leeway if the girl

did not remain ill too long, and he felt much relieved. At the same time he decided that he ought to neglect no opportunity of procuring food in case they were detained.

"If you don't mind my leaving you," he told the girl, "I think I'll go and try to get some fish."

Anne Marie looked at him in some surprise. It seemed so strange to hear a man asking permission from a woman to do as he pleased.

"All right," she answered, nodding.

On the opposite shore there was a long bank lined with reeds near which he thought that pike would lurk. Taking a spoon and a hand-line with him, he pushed off the canoe and began to troll.

The fish did not bite well in the rain, and, after several hours' paddling, he only had three rather small ones—the largest under four pounds.

This was tiresome, and he decided that he could come back at any time and get more. Besides, Anne Marie, perhaps, needed him. He returned to camp and cleaned his fish. The largest he split front and back to the tail and hung it over the smoke. The rain, which had stopped for a time, began again in a steady downpour.

The rest of the day was dismal. He sat down in the tent wishing for a book. He had never before wanted to read in the woods. From time to time he felt the girl's pulse, and wondered whether any of the few tablets he had in his medicine-case would be good for her.

He talked gently to her, but soon desisted, as it seemed so hard for her to answer. She had to make an effort in order to speak. It was better not to let her do so. Paddy was a source of comfort; but within the narrow limits of the little tent there was no room for romping, and with an idle dog's astonishing capacity for sleep, he slept nearly all day curled up beside Anne Marie.

Pierre smoked innumerable pipes, and it gave him rather a headache. He was actually grateful when the girl manifested a desire for a little water, and he constantly offered her milk or tea. He idled over his midday meal, and conscientiously made it consist nearly entirely of fish, so as to save provisions.

The afternoon went by, full of weary

longing for something to do. More fish for supper made him hope that he would not have to live very long on an exclusive diet of pike.

The night came slowly; and when it was dark he felt like lighting a candle, but made up his mind to be saving. He had a big fire outside the tent, and enjoyed its comforting glow. When at length he rolled himself in his blankets he slept poorly.

Anne Marie complained often in her

sleep, and each time he whispered a query to find out if she wanted anything.

Once he was awakened during a brief interval of sleep, and heard her muttering something in the Montagnais language. He wondered whether she was dreaming, and the fear came over him that she was delirious. He touched her forehead, and she awoke, shivering.

"Oh," she said in a low voice, peering intently in the dark, "I dreamt that Quick-wa-tiao, the Carcajou, was here."

(To be continued.)

"THE IMMORTAL J. N."

An Unfortunate Eccentric, Whose Affliction Was an Unsound Mind and Whose Recompense Was an Innate Nobility and Dignity of Soul.

PROBABLY many of our readers were reminded of a familiar and eccentric character when reading a recent number of the "Observations of a Country Station-Agent." Our attention was called to him afresh by the courtesy of Mr. C. W. Bales, Springfield, Illinois, who sent us the pass reproduced herewith.

The "Immortal J. N." was no fictitious character, neither was he an insignificant one, so far as personality is concerned. Although overtaken by the misfortune of an unbalanced mind, he retained the force of a wonderfully magnetic character.

He was known all over the country as the "Prince of Dead-Heads." In enlightening

us as to the personality of the "Immortal J. N.," Mr. J. E. Smith, the author of the article in which he was mentioned, says:

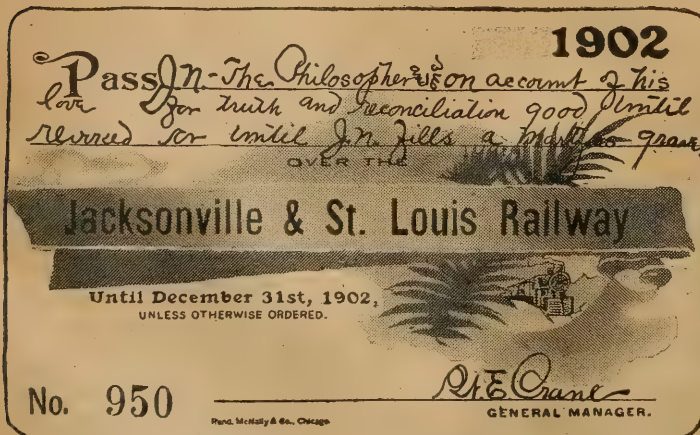
"He traveled continuously and paid no car fare or hotel bills. He styled himself the 'Apostle of Truth—the Great Reconciliator.'"

"He employed the vague terms of 'Lifting the Veil' and 'Removing the Pressure,' to indicate the occult power he held, and which he believed he could employ at any minute at will, either to the blessing or confusion of mankind.

"His real name, as I recall it, was Jacob Newman Free, and his home was somewhere in Ohio. As a young man he studied

law, and was a scholar of promise. Later, his mind became affected, and his mania was to travel.

"His hair grew long and hung about his shoulders. His culture was always in evidence. He was tall and straight and impressive. His memory of faces and names was marvelous. Wherever he went he knew the people, and always manifested a sincere interest in their welfare.



FACSIMILE OF A PASS ISSUED TO "THE IMMORTAL J. N."

"He was admitted to homes, and was tolerated and honored everywhere. His courtesy, majesty, and force were his passports.

"As a rule, hotel men treated him as a guest, and I think railroads provided him with passes similar to the one now in your possession, the passes usually indicating that they were given for some high-sounding consideration. His wrath when asked to pay bill or produce a fare was grand and dignified, and quite overwhelmed the supplicant.

"His acceptance of a favor was with such dignity that all who administered to him were glad and honored to be able to do so. He died a few years ago, just before the anti-pass agitation. Naturally we attributed all that followed to 'J. N.' as having at last 'Lifted the Veil,' or 'Removed the Pressure.'"

In a recent issue of the *Pittsburgh Dispatch*, the following reference was made to his library:

"Hidden away in the most unlikely place in the world, a shabby, wofully prosaic little cottage in a country town, is a library so unique and valuable that to wander among its ancient tomes and fondle their ponderous clasps and worm-eaten pages would plunge the ordinary bibliomaniac into what Robert Louis Stevenson called 'fine, dizzy, muddled-headed joy.'

"Since there is no real reason for preserving the secret forever inviolate, let it be told that the village is McCutchenville, in Wyandot County, Ohio, and the owner of the library is Mrs. Elias Cooley. While this

name may not convey any special significance, Mrs. Cooley is the sister of the late Jacob Newman Free, better known as the 'Immortal J. N.,' and the last surviving member of an extraordinary family.

"To-day his splendid library is piled in confusion in the little McCutchenville cottage in mute testimony of his erudition. In the old home one side of the front room from floor to ceiling was lined with volumes, and the table in front of the shelves was heaped with them. The collection numbered about one thousand volumes. They are printed in many languages—in Latin, Greek, German, Hebrew, Sanskrit, and Chinese. Some of them date as far back as the middle of the sixteenth century. These are stanch old tomes, but the worms have bored their neat little tunnels quite through the heavy bindings of wood and leather. Some are pierced in this way from cover to cover, and a few are gnawed by the rats.

"One book, dated 1570, and written in Latin, contains the works of Eusebius, Bishop of Cæsarea, in Palestine. The covers are a quarter of an inch thick, and covered with leather, and the front is closed with metal clasps. Another, similar in date and binding, is devoted to the works of Chrysostom. A sixteenth-century Bible is over two feet long. The front cover and the backs are torn off and reveal the method of binding. The works of Justin, the philosopher and martyr, printed in Constantinople in 1686, are a curious commingling of Latin and Greek, and are abundantly interlined with notes in the same language."

TRANSPORTING MISCHIEF.

Half a Billion Pounds of Explosives Are Carried Annually by the Railroads with Scarcely an Accident.

COLONEL W. B. DUNN, chief inspector of the American Railway Association, recently delivered an interesting address before the Society of Natural Sciences, on the use of explosives.

Some years ago, according to the speaker, dynamite and other high explosives were treated as ordinary freight, but when commercial uses brought the production up to 500,000,000 pounds a year, it became necessary for experts to solve the problem of safe transportation. Nowadays there are 5,000 cars of explosives constantly in transit

upon the railroads of this country, so that according to the law of averages a traveler should pass one in every fifty miles of a journey.

That the problem has been solved, Colonel Dunn said, was evidenced by the rarity of accidents from these causes. Inspectors are at work constantly watching the packing and shipment of explosives to see that all regulations are obeyed. The speaker asserted that accidents which occur in the handling of these explosives are due to ignorance.



Observations of a Country Station-Agent.

BY J. E. SMITH.

No. 25.—One Cannot Always Tell Just Who Constitutes His Public,
When He Tries to Inject Some Superheated Kindness and
Good Cheer Into His Daily Routine.



GREAT railroad of the West recently installed a systematic course of instructions, teaching employees the "etiquette of travel." It coolly calculates that courtesy aids the road to get and hold business. It argues that passengers at stations or on trains are usually nervous, ill at ease, and really need special attention, which, in turn, they will appreciate to the extent of remembering and recommending the road.

The first pamphlet of instructions opens with the qualifying admission that "affability is a talent; it is also in some cases a genius. One can be cultivated; the other can be acquired only by great effort."

Of passengers in general it makes this observation:

"A large percentage of passengers on a train are in a more or less abnormal condition, ranging from uneasiness to positive hysteria or nervous prostration. Conductors can call to mind many cases where such conditions have become manifest by passengers attempting to jump from the train. In many cases passengers have succeeded in doing themselves bodily

harm. This semidementia begins when the patron arrives at the ticket-window, and remains until the journey is ended, and normal conditions are restored by rest and quiet. . . . A kind word to those in the waiting-rooms, and who may be too timid to ask questions, shows thoughtfulness, and is received with appreciation. . . . A few minutes spent among the occupants of the waiting-room may bring dollars to the company in return."

It is not the purpose of the writer to seriously discuss the value of courtesy. He has had a close range, hand-to-hand conflict with the "dear people," covering twenty-five years, and he has modified and qualified his earlier opinions.

If all ticket-agents and conductors were born gentlemen, and all the men and women who travel were genteel, well bred, and considerate, there would be no "courtesy" problem.

Everything is comparative. If all men were rich, there would be no riches. If all men were polite, there would be no politeness.

But, alas! Sixty-six and two-thirds per cent of us are rude, unpolished, and impudent from the day of our birth.

Then, we do not reach the high passenger jobs on the railroad until we pass our fortieth year; and all the distance we have fought our way over a rough-and-rugged course, and we arrive somewhat ruffled and gnarled.

As an example of this, I took a good look at "Buck" Jones.

Buck runs our package local. Buck shaves and trims his hair every time Halley's comet visits the earth, and probably won't take a bath until he falls into the creek. Buck has an ultramarine vocabulary that fits every angle of a local freight run. Only ten words in all — none of them in the dictionary or book of rules. Used singly, or in combination, they cover the whole range and all extremes of human feeling.

Some day, in the lock-step, forward march of a conductor's life, Buck will be next up for a passenger run. He knows how to do his work and run a local freight, but can he be civilized? That's the question.

After a man has put in twenty years handling barrels, boxes, and green hides, initiating green brakemen, and side-stepping the responsibility of "overs," "shorts," and "damages," he isn't likely to be an ideal professor of the "Art of Gentle Manners."

It's like putting a full-dress suit on the cave man.

But maybe they can subdue Buck, and get on a veneer of polish. Every real diamond, you know, comes from the mud; and we can never know its sparkle and carat until it goes through the processes of cut and polish.

Maybe the "courtesy" school won't take notice when Buck walks in. Glad I'm not the professor.

There are more Bucks among us than Professor Courtesy suspects.

I went over to the passenger station to explain it all to Chauncy, our ticket-man.

"Chauncy," I said benignly, "that sad, far-away, board-past-due, she-never-spoke-again look must come off your face. Have you seen the primer?"

"Primer—what primer?"

"Leaflet 'A,' for kindergarten class.

First aid to the rude. C-a-t, d-o-g. How to be polite, though pushed. How to radiate sunshine, though enveloped in gloom. How to dispense joy and scatter gladness and to fill this smut-covered hole with charm."

"Hold on," protested Chauncy. "I can't keep up. This antimeat diet is going to your head. Sit down a minute. I'll open this window for a little air. When did you first notice it?"

"Never mind me!" I exclaimed. "It's you. You are to get a series of instructions by mail on 'Politeness, or How to Be a Gentleman Regardless of the Natural Bent or Other Deformities, and in Spite of Yourself.'"



"HERE IS ONE DAY WHEN
THIS OFFICE WILL FOR-
GET TO OMIT ITS
CUSTOMARY DENTAL-
PARLOR GROANS."

"What is it? One of them 'put-in-his-coffee' or it 'works-while-he-sleeps' cures?" asked Chauncy, with some curiosity.

"Not at all," I replied. "It's a pamphlet that will come to you leaflet 'A,' then leaflet 'B,' down to 'Q.' When you are through with them you will know exactly how to run a ticket-office."

"Know how to run a ticket-office!" re-



"YOUNG MAN, IF YOU EVER GIT THE RHEUMATISM,
LIKE I HEV."

peated Chauncy contemptuously. "Maybe I haven't learned anything in ten years, standing here and hammering that dater every day. Do you think them fellows in the general offices can tell me anything?"

"They are not telling you anything about how to handle an 'L' punch or to fill in a skeleton ticket to Saskatchewan via Winnipeg, or how to route a home seeker to Tacoma via the 'Air-Ship Line' returning. They are going to improve your manners. They are going to make you so pleasant, polite, and considerate that people will come for miles to ride on your road.

"There will be a big sign over your door reading, 'Welcome.' As people enter, you will stand by and bow, bestow a cheering word and extend a warm hand-clasp. Then you will circulate among them with genial cheer and engaging amiability. You will be helpful and considerate to the aged, the ill, and the infirm. You will mingle in common brotherhood, and be a father to all who come to you."

"Hold on!" protested Chauncy. "This

line of talk is not for 'yours truly.' My system cannot be improved upon. It is the respectful distance, instead of the close touch. When my brand of poise and decorum don't suit 'em, it's me back to agriculture. What's the use of straining yourself to be polite, when you can get one dollar for a rooster and forty cents a dozen for eggs?"

The argument became heated.

I held for intimate relations, and Chauncy for a dignified reserve.

"I'll tell you what I'll do, you proselyte Missourian!" I exclaimed with warmth. "I'll show you up! I'll run this ticket-office one day on the plan outlined in the pamphlet! I'll lift the sadness from this dismal joint! I'll make the people feel that this is not the cave of gloom or the chamber of horrors, but the house of gladness!"

On the following day Chauncy turned the plant over to me with all rights and good-will.

I took a chesty pride in showing the young man up. I was eager to demonstrate to him the value of the sympathetic ear and the kind word, and, by contrast, bring disgrace on him in public.

I appeared neatly shaven and with vaselined hair. I wore a gaudy vest and a necktie of brilliant hue, for bright colors suggest cheer.

Chauncy slunk into an obscure corner to be a passive and unsympathetic observer of the day's doings.

"Aren't you going to open with a hal-leluiah service?" he asked tauntingly.

"I may hum some merry ditty from hour to hour, and in between I may whistle snatches of some blithesome song," I replied. Then I added insinuatingly: "Anyway, here is one day when this office will forget to emit its customary dental-parlor groans."

The telephone rang rather persistently, but I answered every time with promptness and with a cheery "Don't forget to call again," and "No trouble at all, I assure you."

Still, for the life of me, I do not see why one woman had to call me up four times to find out how to get to Pennville and back, particularly when I was so careful to give her every detail the first time. Oh, well, women are naturally nervous about travel, and we must emphasize what we explain to them before they feel fully assured.

"Br-r-r-r-r-r!"

"Hallo! Ticket-office of the Tip-Top Railroad. How's that? Pennville? Yes, that's correct, as I told you. Let you have it again? Oh, very well—with pleasure. Eh? How's that?"

I held my hand over the mouthpiece so my voice would not carry.

"Wouldn't that frost you?" I observed to Chauncy. "She says her Aunt Jane says there ain't such a train out of Pennville that I gave her. Says who's right—Aunt Jane or me?"

"I notice your brow is slightly corrugated," hinted Chauncy.

I directed my attention to the telephone.

"Hallo! Your Aunt Jane is mistaken. You can count on the train as I gave it to you."

"Well, we think we do—"

"Anyway, this time she's off—mistake—"

"Don't bang that telephone so hard when you hang it up," suggested Chauncy. "They cost money."

An old lady came into the waiting-room, and seated herself with a sort of grim endurance for an hour's wait.

I went out and greeted her with a friendly salutation.

"Good morning, grandma," said I. "You have quite a wait before your train comes. If you will sit over in this seat, I will raise the window for you. This is a fine morning, and the spring air is a tonic."

"I don't see why you want the wind to blow on me for!" observed grandma, with a cold, steely look. "Young man, if you ever git the rheumatism, like I hev, you wouldn't ask eny one to set in the wind. I'm thinkin' you didn't ask me to expose myself for eny good. What you thought of was, if I'd set there in the draft, maybe I'd go home and die. Then all my folks from around Dayton and Eaton would haft to come out here to

the funeral, and that would make business for your old railroad. You're in a awful little business. You're purty low-down, you air."

"Indeed, madam," I hastily apologized, "I was only looking to your comfort."

"Well, they ain't no use to argue. I'm goin' to stay sot right here, and you'd obleege me by not sayin' eny more to me."

I beat it into the office. Chauncy chuckled exultantly.

Then a voice called to me through the ticket-window—one of those raspy, insistent voices with a "step-lively" and "come-across" inflection to it.

"Say, young fellow," he demanded, "I want some information. I want to go to Kalamazoo and return to Kokomo, and then to Oshkosh, by to-morrow night; and if I get to Peoria, how much time will I have at Aurora? And how far is Urbana from Susquehanna? And do you know of a good dollar-a-day house at Champaign? And when is the last interurban out of Paducah? Quite a wait at Effingham before I could get out to Cairo, ain't it? Wouldn't be surprised if it didn't rain before night—"

This came out in a straight string, and only one breath.

I shoved him the official guide.

He pushed it back.

"Say, you look it up. I can't get anything out of them guides."

"Really," I explained, "I don't think I can find the time right now. There are so many waiting for tickets—"

"You're paid for looking these things up, ain't you?" he blurted.

"Yes, but—" I had that pitched higher than was necessary, so I modified it to the gentle assurance that in a very little bit I would look it up for him.

"Oh, never mind," he snapped. "Give me a ticket to Sweetser. A man can get a stock-market tip out of J. Pierpont Morgan about as easy as he can get a piece of travel information out of a ticket-agent."

A sort of mocking cough issued from the corner of the office.

Then the telephone-bell rang.

"Hallo!"

"So—Uncle Reub says there isn't any such a train out of Pennville. Well, the

guide says there is. That's all I can say. What's that? Oh, no! We wouldn't purposely mislead you. No, we would not. I say we would not. I want you to understand—"

"Br-r-r-r-r!" right in my ear.

Caliban, sitting in the corner pulled his hat down over his eyes to hide the grimace of his face. No need of that. I didn't look over in his direction.

"Goodness me," came a thin, piping voice from the other window, "I'm afraid you'll make me miss my train, you keep me standing here so long for a ticket. You are certainly not very attentive."

After the rush had subsided a little, I noticed a dear young thing with velvet eyes and peach-blow cheeks, looking about the waiting-room. She seemed so timid and so frail to be alone in the rude jostle of a public station, that I hurried out to her to speak a word of cheer. I was eager to circulate.

I asked her if there was any information I could give her. Could I bring her some of our reading-matter to entertain her while she waited?

She thrilled me with a smile.

"You are so nice and considerate," she said. That high-voltage compliment went through me to the finger-tips.

With fine presence of mind, I put one over for the railroad.

"It is our desire to be kind and considerate to our patrons. The road demands it, and we find it a pleasure."

"Really," she blushed. "It is so unusual—so extraordinary! I always thought railroad men were so er—well, not exactly rude, but so blunt, and—and—rather peremptory. I always shuddered when I had to ask them for information."

"I am sorry we have that reputation," I rejoined smilingly. "In a measure, we may have deserved it; but we expect to make amends. We expect to become more and more courteous and obliging to our patrons, and attract them to us instead of repelling them. 'Nothing pays so well as kindness.'" I added that maxim as though I had just received it fresh by wireless from "Poor Richard," or Confucius.

"How delightful!" she exclaimed.

Then, with a sort of legerdemain and quicker-than-the-eye dexterity, she whipped from the folds of a fluffy jacket a rose-colored magazine and thrust it into my hands.

"That's the *Ladies' Home Doings*," she added with a quick smile. "Published in Quakerville. I am canvassing for subscriptions. Only two dollars the year. Think of that! Only two dollars! American menus, American patterns, American morals—and society. Ninety-six pages of uplift and refinement every month!"

I put on the reverse and began to back slowly.

She stayed me with a pretty hand on my arm. She lifted her eyes appealingly to mine.

"If I can get them a million subscribers," she went on with a sort of pathetic hunger, "I get a trip to Europe! You know what that means to a girl. You are a ticket-man. You know how travel



J. NORMAN LYND

I PUT ON THE REVERSE AND BEGAN TO BACK.

broadens and educates. You are such a good man—such a nice man—such a kind man. You will help a poor girl, won't you?"

A sudden impulse of benevolence overcame me. I could not turn her away. I thrust my hand deep into my trousers-pocket and brought forth two shining "e pluribus unums," and she deftly slipped them into the capacious maw of her dangling reticule.

do about that train that doesn't run out of Pennville? I have told you it does! d-o-ē-s! D-O-E-S. run! Is that plain enough? Uncle Reub? Oh, Uncle Reub be hanged!"

I hung up with a bang.

"Whoa!" came the croaking voice from the corner.

I went out into the men's waiting-room, primarily to cool off, but, incidentally, with another consignment of good



"WILL WE BE HERE NEXT WEEK?" HE DEMANDED.

"How nice of you," she added, recording my name. "You will be delighted with the magazine. I know you will. You might help me with others. Couldn't you speak to some of your friends for me?"

"Don't forget," I interrupted with fine business instinct, "that when you go to Europe our line takes you to New York."

"Oh, the magazine people will attend to that," she replied, and was gone.

"Stung!"

That hoarse, exultant chuckle came from the corner of the office.

The telephone was ringing.

"Hallo! Yes! What am I going to

cheer to scatter among the few passengers that were there.

A lean, hawk-nosed man sat on the end of a seat, apparently dejected and dyspeptic.

He empaled me with a restless eye, and I at once came back at him with the cordial information that it was a nice day.

"Nice day to-day," said he gloomily.

"But what of to-morrow? This is a bad climate. To-day everything may be fine. To-morrow it may be raw and blustry, and the next day you may have pneumonia, and next week your lodge may be passing appropriate resolutions on you. That's this climate, sir!"

"Well," I said cheerfully, "a few of

us get through it all right. You and I are still here."

"But will we be here next week?" he demanded, almost fiercely. "Tell me that. Some one dies every minute. What's your minute? What's mine? He jumped up and confronted me at close range, as if to read the answer in my open, joyous countenance.

"Search me," said I airily. "Why don't you see a trance clairvoyant?"

"That's it!" he shouted. "The American people are always joking—always frivolous—always light-headed."

"What's the use to be otherwise?" I argued; "why not fill the world with joy and sunshine to-day, and take no heed of to-morrow?"

"Improvvidence! Criminal neglect! Casting off the loved ones to be a burden on others!"

"No gloom for me," said I, edging over toward the office.

He clung to me and followed me in.

"You're a salaried man," he persisted. "You get so much every month. You know what to count on. You are the last man in the world to fail to provide for your little ones—to save them from the cold and cruel world if your minute should come soon. Study that."

He thrust a pamphlet into my unwilling hands.

"We wrote eleven thousand and nine new policies in 1909. What's our outstanding insurance? Two hundred and seventy million dollars! We have never contested a claim. What's our assets? Over a hundred million! Look over one of our double-barreled, quick-trigger, ten-shot policies, where you share in the surplus and participate in the dividends—where you draw out more than you pay in—and we actually pay you for the privilege of carrying your insurance! You should have a five-thousand-dollar policy. What's your age?"

"Hold on!" I cried. "Cut it out! A railroad man that eats meat and eggs can't have any money left for premiums. Nix on more insurance!"

"You don't care what becomes of your family?" he asked, with a tone of injury.

"That needn't be any concern of yours," I retorted warmly. "I'll take care of the family."

"The little ones can go begging, eh?"

"Vamose! Clear out!"

"Of course, there's orphan homes—"

"To the waiting-room for you!"

"And private charities—"

"Dig!"

"And poorhouses—"

I slammed the office-door and wiped a few beady drops from my forehead.

A strange, guttural sound came from the corner.

The telephone rang.

"You ought to know," came the voice to my "Hallo!" that they ain't any train out of Pennville. Uncle Reub says the durned fool—"

I cut off the rest of it by hanging up the receiver. Then I rubbed my head and said: "Tranquillity—tranquillity—tranquillity," forward, backward, and down the middle nine times until I was composed and could not hear the mocking snicker that came from the corner.

Just then I noticed a frail little woman in the ladies' waiting-room looking out of the window at nothing in particular, and sobbing gently.

I was moved by the woman's tears, and hurried out to her.

"My dear madam," I exclaimed, "it pains me to see you cry. Can I do anything for you? How can I help you in your troubles?"

"You—can—help—me—a—little—if— if—you—will," she sobbed, lifting tear-stained eyes to me.

"I'll do anything in reason, madam," I added hastily. "Anything!" for she was pretty.

"We've—had—a—quarrel, Jim and me. He'll—follow me here—I'm—afraid. Please let me step—in your—office—a minute—or two—until he—gets over—his mad spell."

"Certainly," I said, opening the door.

She stepped inside and planted herself before a mirror which we had in the rear of the office. With dainty hands she readjusted her hat, her rat, and her puffs, and wiped her eyes.

A husky-looking young fellow thrust his nose up to the ticket-window.

"Say," he called, "have you seen a woman around here wearing a large black hat and a blue suit?"

"No, sir," I answered stoutly.

"You would remember her if you saw

her! She has large blue eyes, and fine teeth—nice complexion, too. I'm awful anxious to find her. I am, for sure."

"Well, she hasn't been here," I answered with indifference. "I've seen 'em all. None of 'em answers that description."

"I'm disappointed—I sure am," he answered in a sorrowful tone, turning

He grew purple with rage.

"Ain't you going out and mix with the public?" asked Chauncy reproachfully.

I refused to go out, and when the bruiser saw I positively would not accept any invitations for morgue honors he moved away, with the woman clinging to him.



away. "I wanted to tell her how sorry I am."

The door of our office flew open.

"Here I am, Jim!" cried the little woman, running to him.

"Why, Puss," he exclaimed, "were you hiding in there?"

Then he made a rush for the office; but the spring-lock held him. He reappeared at the window redder than a train-order flag.

"So you was putting your oar in this, was you—you pie-faced monkey?—Come out from behind there," he roared, "and I'll decorate that mug of yours so you couldn't be identified for a month! Come on out, you smug-faced, lying coward—you—you—"

But the woman returned to the window for a parting shot.

"I would have you know," she replied, "that Jim is a perfect gent."

Then she elevated her nose and tilted out to Jim, and they departed, arm-in-arm.

Chauncy should have gone out and explained matters. Instead of that, he wanted to match me against them, knowing, too, that I might go too far and do something I might regret. I am disgusted with him.

At luncheon I called him on the phone. He's too perverse and thick-headed to learn anything, anyway. Besides, why should I neglect my duties at the freight-house?

So I told him bluntly that I would not return for the afternoon, and for him to run the passenger station in his own way.

The other day I read a strange story. It is said to be true. It is a story of the "Kind Word" and the "Ultimate Result."

There lived in a small town near Chicago a rich, but eccentric, old man.

He made frequent trips between his home and the city. He was of a curious turn, asked many questions, and drew heavily on the patience of the conductors.

One conductor, whom we shall call Jones, was always polite to the old man, and often put himself out a little to amuse or entertain him with stories or observations out of the ordinary.

It pleased the old man, and at length he made it a rule to select Jones's train whenever he could for his trips.

No matter how importuning the old man was, Jones never grew irritable or short or crusty. It is Jones's way. He is always pleasant with every one. He really doesn't know how to be otherwise.

One day the old man traveled to that bourn from which there are no return-tickets. They read his will.

There were some minor provisions. Among them was an item bequeathing the sum of one thousand dollars to Conductor Jones, "For kindness."

This, being a true story, shows that it pays to be civil. And it pays to mix—only: Don't overmix!

DON'T BUY A TICKET ON THIS LINE.

DARK VALLEY RAILROAD.

Great International Route.

Few stop-over checks.

Unreliable return trains.

MILES.		STATIONS ON MAIN LINE.	TIME.
0	Leave.....	Smoky Hollow.....	7.00 A.M.
6	"	Cigarette Junction.....	8.00 A.M.
10	"	Soft-Drink Station.....	8.30 A.M.
15	"	Moderation Falls.....	9.00 A.M.
18	"	Tipplersvale.....	10.30 A.M.
20	"	Topersville.....	10.45 A.M.
22	"	Drunkard's Curve.....	11.00 A.M.
25	"	Rowdy Wood.....	11.45 A.M.
30	Arrive at.....	Quarrelsburg.....	12.00 noon
Stops one hour to abuse wife and children.			
32	Leave.....	Bummer's Roost.....	1.00 P.M.
34	"	Beggar's Town.....	4.00 P.M.
36	"	Deliriumville.....	6.00 P.M.
38	"	Rattlesnake Swamp.....	8.00 P.M.
40	"	Prisonburg.....	10.00 P.M.
44	"	Devil's Gap.....	10.30 P.M.
46	Arrive.....	Dark Valley.....	11.30 P.M.
48	"	Demon's Land.....	11.45 P.M.
50	"	Dead River and Perdition.....	12.00 mid.

Tickets for sale by all Bar-Keepers.

ANNUAL STATEMENT OF THE D. V. R. R.

Carries 400,000 paupers. Brings Misery and Wo to 2,000,000, Despatches 60,000 into Eternity unprepared. Carries 600,000 Drunkards. Conveys 100,000 Criminals to Prison.

D. E. VIL, *Gen'l Manager.*

A. L. COHOL, *Agent.*

—*Pere Marquette Monthly Magazine.*

A HOLD-UP ON HOG MOUNTAIN

BY AUGUSTUS WITTFELD.

Monk Tells of a Ride on the Scenery Special That Was Rudely Interrupted by a Pesky Pirate.



THESE stories of hold-ups and train-robberies," said Monk, "always remind me of an actress who has been robbed of her glittering glassware. You never heard of any one doing much on the proceeds of histrionic highwaying, and the man who attempts to hold up a modern express-train may get away with the goods, but eventually the sheriff puts him on his visiting-list."

"Right you are," replied the pug-nosed brakeman. "It takes nerve to hold up a train, but it takes more than nerve to pull the trick off successfully and retire on the proceeds. The men who possess all the qualifications requisite for such jobs generally land a sinecure behind the frosted-glass partition."

"Now you're talking classical English," commented Monk, "and expressing clarified thought in capsule form. I never knew but one man to pull off a hold-up successfully, and then obliterate himself from the surroundings."

"It happened down South, where at one time the railroads were noted for their lack of speed, and where it was impossible to miss a train. All you had to do, if your train had left the station, was to follow it on foot, and you couldn't miss it unless you overlooked it or mistook its creeping for the inertia of a side-tracked section."

"Yes," commented the pug-nosed brakeman, "I knew of a man down there who brought suit against the S. L. O. road to recover for damages sustained in bumping into the rear end of the moonlight limited while walking along the track."

"The company tried to non-suit him by bringing a counter charge of trespass; but his lawyer threatened to attack the validity of their charter on the ground that they could not prove that they were *running* trains, and they withdrew their charge."

"The plaintiff won his suit, and the company was ordered to upholster the rear end of their trains to prevent a repetition of such accidents."

"Well, to get back to the hold-up," said Monk, "I was touring the South, some years back, and at this particular time my objective-point was Boonville. As I had lots of leisure, I decided to make the trip by rail."

"I caught up to a freight bound for that point, and, sauntering up to it, I swung myself aboard the caboose and proceeded to accord myself a cordial welcome. I took possession of the lower bunk without waiting for the porter to appear, and was soon in the land of dreams."

"I was awakened by the crew, who had come back to see if the rear end was all right. He asked me what the Stonewall Jackson I meant by intruding, and volunteered to punch my ticket or my head without fear or favor."

"I hypnotized him by making a few occult passes, and he extended me the cordial *entente*. It was pretty good stuff, even though it was tax-free and did not bear the pure-food guarantee."

"If you will pardon the interruption," said the pug-nosed brakeman, "I want to pay tribute to the railroads of the South. The Southern spirit of hospitality is not dead; and the Chesterfields of the rail will give you the glad welcome or the

G. B. with all the grace born of heredity and long practise. They will fire you from a train in such courtly manner that you feel like apologizing for giving them the trouble."

"Your prognostication coincides with my observation," commented Monk. "This Chesterfield of the caboose told me we were approaching Hog Mountain, a moonshiners' stronghold, noted for its reluctance to contribute to the revenues of the government and for the weirdness and grandeur of its scenery."

"He said he had to get back to the engine and tend to his fire, and he advised me to take a seat in the observatory of the caboose and enjoy the phantasmorama."

"I took his advice, and found that we were traveling up into the mountain, and that the scenery was all that he claimed for it. I was taking in the passing scape, when I noticed a tall mountaineer making his way down a rugged path toward us."

"He carried a long rifle, and was accompanied by a lean, lanky coon-dog. He reached the railroad-track just as we passed, and, spying me looking out of the observatory window like a blooming *Juliet* scouring the horizon for a dilatory *Romeo*, he pointed his rifle at me and commanded:

"'You-all throw up your hands!'"

"I looked at him in amazement, but lost no time in doing the upward Delaware movement."

"Say, you moth-eaten mountaineer," I shouted, "what's the answer to the riddle you're propounding? Have I unconsciously butted into a Hatfield-McCoy combination, or do you imagine this is a treasure-train?"

"You-all stop that train, or I'll blow your darned head off!" he replied.

"How the heck do you expect me to stop the train?" I shouted back. "Run along, Reuben, and file your request with the engineer. He's running this seeing-the-scenery special from the front end."

"For a moment he looked as if he doubted my statement; then, lowering his gun, he sprinted for the forward end, while I climbed down from my perch and started out to investigate."

"As I stepped from the train, it came to a stop, and when I reached the engine

the mountaineer had the engineer and his man of all work lined up with their hands as far from earth as possible. He caught sight of me, and in a wink he had me doing the high reach alongside the others."

"Say," growled the engineer, "what you want to do? Steal this outfit? There isn't anything on board you can take, unless it's the coal in the tender."

"Don't you-all give me no sass," cautioned the tall man of the mountains. "I'm going to borrow this train, and you-uns 'll have to run it for me."

"Well, he made us all climb aboard, packing us into the cab, and ordered the engineer to start up."

"Say," queried the engineer, with his hand on the throttle, "aren't you going to ride?"

"No," replied the mountaineer, "I hain't never been on one of those pesky things, an' I ain't going to take no chances. I guess I can hoof it and keep up to you; but don't you-all try to run away from me, or I'll plug you full of lead!"

"The engineer started up, and the Highland hold-up man had no trouble keeping up with us. The queer procession proceeded for several miles, then we came to a place where a track branched off from the main line into the heart of the wilderness. Here he brought the engine to a stop by pointing his gun at the engineer and shouting, 'Whoa!'"

"Now, you-all git down and move the track over so we can go up this 'ere way," he commanded, addressing the man of all work."

"That worthy lost no time in climbing down and throwing the switch, and we moved along the old unused track."

"What the nation does that elongated outlaw want to run us up this old lumber-line for?" growled the engineer. "There hasn't been a train along here since the road stopped taking out timber."

"Say, you train-robber!" shouted the man of all work, addressing the patriarchal pirate in his most courtly manner, "will you kindly inform us whither we are going and why, and what is our doom?"

"You-all 'll find out soon enough," he answered. "Shut up!"

"We proceeded for about three miles, and then the grizzled guerrilla commanded the engineer to stop. He told the fire-

man to fix his fires so they would last for a couple of hours. When everything was ready he lined us up in single file, with the lanky coon-dog in the lead, and made us precede him along a path in the wilderness. In about fifteen minutes we came to a cabin in a clearing. In answer to a whistle from our captor, a woman appeared at the door.

"'Mandy,' he said, 'I've brought company for dinner. Rustle around lively. These gents is in a hurry.'

"In a short time the meal was ready, and we all sat down. It knocked the wind out of me to hear that venerable villain ask a divine blessing on the repast, but it didn't spoil my appetite.

"After we had finished and the table had been cleared, our host procured writing materials and placed them on the table.

"'I want one of you-uns to write a letter,' he said. 'Guess you-all had better do it,' he continued, addressing me.

"I expressed my willingness to accommodate him, and prepared to stenograph his dictation.

"'This here letter,' he said, 'is to be wrote to the President of these United States.'

"I indited the superscription and waited for him to commence dictation.

"'Mr. President,' he started, and then continued:

"DEAR SIR:

This here section of the country has been pestered by a lot of no-account revenue men huntin' for moonshiners.

They have made it onpleasant for us honest natives and we-all has had to feed them pretty darn often. To prove to you that these revenue men you send down here are no-account critters, I am sending you by railroad a keg of first-class moonshine whisky which I made in my cabin while your varmints was there eating my grub. I guess you-all will find it all right, but there is no use you sending any more of them critters down here to get me, for I am going away. Please excuse the writing, as it was done by a no-account railroad man. Your, truly,

[his]
JAKE X. TOLLIVER.
[mark]

"Quite an expressive epistle," commented the pug-nosed brakeman.

"Yes," replied Monk. "That mountaineer had the art of letter-writing down fine. After I had finished my stenographic duties, that moonshiner produced a five-gallon keg and made us lug it down to the train. He told the engineer to see that it was delivered to the President along with the letter. Then he bade us adieu and told us to clear out.

"We backed out of that wilderness, and eventually reached our destination."

"And was the liquor sent to the President?" asked the pug-nosed brakeman.

"Not in a thousand years!" exclaimed Monk. "Somehow or other that keg sprung a leak, an' before we reached our destination every drop of the liquor was gone. If the train hadn't run so slow, we might have saved some of it."

RAILWAY CLERK'S ORGANIZATION.

MANY railway clerks, both members and non-members, entertain the idea that the sole purpose of this organization is to compel railway companies to increase the pay, and decrease the hours of service of its members, whether they are justly entitled thereto or not.

Many railway superintendents, agents and other officials look upon this and all similar movements in the same light; and it is the dominance of this idea over one of both parties to a controversy over wages and conditions of service, that leads to strikes and lockouts, instead of peaceful solution.

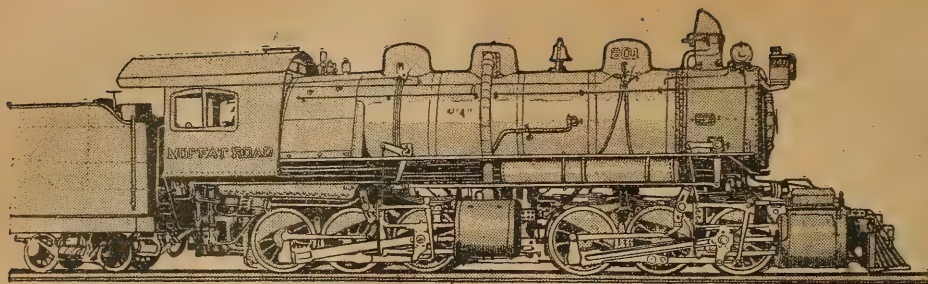
This is an entirely erroneous view for those of either side to hold and, because of

its harmful, unjust, even dangerous tendencies, should be stored with memories of the past and replaced by broader, more up-to-date, generous and just views.

These movements are not transient, they are enduringly based.

Like all other class organizations the Brotherhood of Railway Clerks came into being in response to an economic necessity.

Civilization began with combination of effort or organization of the species; as its efficacy and possibilities became apparent the movement grew and prospered; its net product, civilization, followed apace and the evolutionary process marches bravely onward in the path of time.—*Railway Clerk.*



MALLET ARTICULATED COMPOUND, NO. 200, RECENTLY BUILT BY THE AMERICAN LOCOMOTIVE COMPANY FOR THE DENVER, NORTHWESTERN AND PACIFIC RAILWAY. WEIGHT, 327,500 POUNDS; BOILER PRESSURE, 225 POUNDS; GRATE AREA, 72 SQUARE FEET; HAULING CAPACITY, 7,145 TONS ON THE LEVEL.

Mallet and His Invention.

BY ARNO DOSCH.

THE history of Anatole Mallet and his engine is a curious repetition of the history of nearly all great pioneers in the field of invention. The story of the fight for recognition and, after recognition of his engine, due credit for himself, is one of the romances of railroading.

It is a romance that ends happily, though not entirely satisfactorily. Mallet's belated victory has deprived him of all the fruits of victory except undying fame.

The patents by which his engine was originally protected have long ago expired, and the fact that the creation of his genius and persistence is revolutionizing the rail transportation power of the world does not put one cent into his pocket. The slights of practical railroad men are all the more difficult to understand when one remembers that Mallet has always been among the very highest of the scientific men of the world.

Scoffed At by Practical Builders, Considered as an Unimportant Product of Bad Railroads, the Mallet Articulated Compound Is Now the Last Word In Engine Construction.

“**W**HY is this new engine called a Mallet?” railroad men frequently ask these days. “Who is Mallet, anyhow?”

Few can answer. Even among civil and mechanical engineers he is hardly more than a name. Vaguely, it is known that some Frenchman, named Anatole Mallet—and most do not even know his

first name—invented the articulated compound engine which is revolutionizing the handling of freight on American and foreign roads.

But there are not a dozen engineers who ever heard anything about the man himself and the struggle he had to get recognition.

This is surprising, but is by no means the most curious circumstance which confronts any one who tries to find out about

him. Naturally, the place to look for information regarding a man who has done such a big thing is among the list of notables of his own country—in this case, "Who's Who in France." But, strange as it may seem, he is totally unknown to the compilers of this book. It is only by going to the records of the French Academy of Sciences that his importance is realized.

The Man, Mallet.

Mallet is still a hale and hearty old man, carrying on the business of consulting engineer at 30 Rue Trouadaine, Paris. He is well along toward eighty years of age, but still active.

For fifty-three years he has been a member of the Academy of Sciences; as early as 1873 he was secretary of the society, and now, for over thirty years, he has been editor of its publications. He has also been a member of many important committees, and belongs to several other French scientific bodies. But the most important and surprising information there is to be had about him is that the Mallet locomotive, which we regard as something very new and wonderful, was invented by him in 1874, and put into actual service as early as 1875.

It has, however, had a long struggle for recognition, and would not, in fact, have arrived at its present importance if it had not been for the American locomotive designer, Carl J. Mellin—pronounced Melleen. It was Mellin who saw the fulness of the possibilities in the Mallet type of compound locomotives, and developed it until it has reached its present position in the railroad world.

It was not until Mellin made practical use of its great possibilities that Mallet's invention had had a chance to show what it could do, although Mallet struggled for many years to bring it before the railroads. That it was neglected was a source of constant sorrow during the greater part of his life, and if he had not been a particularly long-lived man, he would never have seen its final triumph. Any story of Mallet is the story of his engine, as it has been the pride of his life.

Other men had been trying for a number of years to work out the same design

as Mallet successfully evolved, but all had failed. Something of the kind was, however, a necessity on many of the smaller, crooked railroads in Europe. They were narrow-gaged, winding as a road full of sharp turns and of uneven grade—very much, in fact, like our trolley-lines. They required engines which could make the sharp turns and could adjust themselves to the sudden changes in grade.

Mallet solved the problem by making his engine with a high and a low-pressure cylinder, arranged on an entirely different system from the ordinary compound. The engines were necessarily light, not to overload the road-bed; and to get as much force as possible in the drivers, and get a correspondingly large hauling power, he put all the weight on the drivers.

The first engine which was made under his directions was turned out by the Creusot Works, in 1875, for service on the Bayonne and Biarritz Railway, a road which was used only by tourists. As the engine was then constructed, the duties of the engineer were rather complicated, and, largely on this account, it was not made much use of on other roads until the engineer's duties were modified.

In those days Mallet, besides being secretary of the Academy of Sciences, was engaged in all sorts of engineering problems, and did not do much toward improving his engine until almost ten years later, when the Decauville Engineering Works, near Paris, called on him for a design of an engine which could be used on a portable railroad in military operations. So he took his former design in hand and made several marked improvements, especially in the gear, reducing the engineer's duties practically to what they are now.

The Pioneer of the Type.

This Mallet, made in the early eighties, contained all the essentials of the biggest Mallets made to-day. Instead of having three or four drive-wheels propelled by each cylinder, it had only one; but the design was the same. As in the latest improvements, the frame which carried the rear drivers and the rear or high-pressure cylinder was rigidly attached to the boiler and made secure in the usual

manner, and the forward drivers and the low-pressure cylinders were on an entirely separate frame, which was capable of turning independently of the rear drivers. George L. Fowler, a consulting engineer of New York, who saw the Decauville portable engine in operation, says it was in every way the same as the huge mountain-climbers now in use on the American railroads.

"It was the first Mallet I ever saw," he said, in describing it, "and it was so small you could almost jump over it. Except for the design, you could not believe it was any relation to the monster Mallets they are turning out in this country nowadays.

"The possibilities of the engine for light work were apparent in an instant. When I saw it in operation, it was hauling a heavy cannon over a roadway that was being laid but a few minutes ahead of it. It was an uneven country, and, for the benefit of the test, they were building bridges and laying track from material which had been torn up in the rear of the locomotive as it passed. There were, altogether, only a few hundred yards of track, but this was built so rapidly that the little Mallet was able to keep going faster than I could walk. It was extremely unsteady and uneven, as you can imagine, and the engine swayed back and forth over all kinds of grades; but either the forward or the rear wheels would always keep going."

That capacity always to keep going is what is making the Mallet what it is coming to mean to freight hauling on the American mountains. Besides having fifty per cent greater hauling power than an ordinary engine of its own weight, the fact that the forward and the rear drivers are worked by separate cylinders on separate trucks makes it capable of forging its way steadily ahead, even if one set of drivers loses its grip on the track.

A Prophet Without Honor.

When Mallet built the portable engine he had in mind its possibilities for heavier work—such work, in fact, as it has been put to of recent years; but, at the time, he could not secure the attention of the great railroad builders. It might do well enough for portable railways and

small, mountain-climbing roads, they said; but when it came to real railroad-ing, they could see nothing in the Mallet.

This attitude on the part of railroad men, and the attempts Mallet made to break it down, give his career a particularly dramatic turn. And then, when it was finally taken up by the railroads and made use of, as might have been done years ago, the glory of it was almost lost to him. There was a time, when it first came into prominence, when it was known by the names of two other men, and it was only because their names did not stick in the memory as well as Mallet's that he received the fame in the end.

Science has recognized the value of his contribution to the world from the beginning. He had no sooner placed his engine in operation on the Bayonne and Biarritz Railway than the Academy of Sciences presented him with a gold medal and placed him among the most important of its members. Then, when the Decauville portable engine, which he had designed, proved a success, the French Society for the Advancement of National Industries conferred on him another gold medal.

Belated Honors.

Again, when the engine was coming into considerable use on the mountain railroads of Europe, the same organization, in 1895, gave him a second gold medal for the same invention, apparently as a double honor to offset the general lack of credit. And even America has given him scientific honors, but it was done in such an unostentatious way that no one ever heard about it.

The honor in this case, however, was not given on account of the greatness of his achievement, but for a paper on the subject of the Mallet engine. For this the Franklin Institute of Philadelphia, in 1908, presented him with the Elliott Cresson medal.

Little good these honors do him. To the world at large, and particularly to railroad men, he is absolutely unknown. That even his name would be lost he feared himself, and was put to the necessity of writing to the leading engineering papers and correcting their mistake when they fell into the habit of calling

his wonderful invention by the names of other men.

But, first, he had to get his engine recognized. He has not been, at any time in his career, either connected with a railroad or with a locomotive company, and on that account it has been to the interest of no one to make his invention prominent. When it finally won out, it was on sheer merit, and Mellin, the man who made it what it is to-day, did not even know the inventor. He had seen engines built on that design, and that was all.

Heart-Breaking Struggle.

If he had cared to, Mallet might have used his position with the Academy of Sciences to bring his invention more prominently into notice, but this he does not appear ever to have done. Although at various times scattered through a score of years, he wrote on it publicly, and proudly called attention to the few engines of the type which were being successfully used, these articles always appeared in the technical papers which had no connection with the Academy of Sciences.

He did, however, feel himself called upon a number of times to point out in technical papers the virtues of his engine, and suggest its wider use. As late as 1900, only a short time before Mellin arrived at the same idea, he wrote on the subject in as nearly a bitter frame of mind as a scientist could permit himself.

At this time—a quarter of a century after the engine was invented—but four hundred were in existence, and most of those very small and on unimportant lines. Still, he spoke of them proudly, and showed how they had been successfully used.

The article was in *The Railroad*, the most important of the French railway publications; but the readers of the magazine were, as a whole, so little acquainted with it that he went into elaborate explanations of why he had invented it in the first place, and what he had done with it since. Among other things, he said:

“I produced this type of engine to furnish railroads a more powerful and more economical engine than those now

in use without increasing the load on the individual wheels or the resistance of the locomotive on curves.”

He might have added that the railroads had not appreciated his efforts. Instead, he went on to say that the limit of size for ordinary locomotives had about been reached, and intimated that the railroads would soon be driven by necessity into making general use of his design. In fact, that happened.

Within two years, the Baltimore and Ohio Railroad decided that it needed bigger engines to haul its trains over the heavy grades. It found that it was no longer possible to put more weight on the individual wheels, as the road-bed and the curves would not stand it. The only alternative was the Mallet.

Beginning of the Triumph.

But this did not become apparent at once. In spite of Mallet's efforts, the engine was only known as a little, narrow-gage affair, and it was due to the ingenuity of Mellin that it was made of practical value on American roads.

Mellin was the chief designer for the American Locomotive Works, and had a considerable reputation as a locomotive designer. His fame since, however, has grown to many times what it was before. When he first announced that he was going to supply the Baltimore and Ohio an engine that could do the work of any two engines then in the service, his statement was not taken very seriously.

When he said that it would be on the Mallet design, railroad men who knew what that was were even more skeptical. Failure was predicted on every side until the first of the big Mallets was tried, and then it was immediately apparent that a long step forward had been made.

What the Engine Is.

This is all the more surprising, viewed in the light of later events, when one takes a look at the main features of the Mallet articulated compound engine. It would seem that always the things that appeal to us as the most obvious improvements when put into practise form the largest stumbling-block to the credulity of experts when first stated in theory.

The Mallet engine is really two engines in one; that is, two engines with one boiler. There are two sets of coupled drivers and two pairs of cylinders.

The high-pressure cylinder and the rear set of drivers are fixed rigidly to the locomotive frame, and the low-pressure cylinders and forward drivers are swiveled under the forward part of the engine, so as to act as a forward truck. The two gears are connected by a pivot just forward of the high-pressure cylinders.

This arrangement obviously gives a short, rigid wheel-base, while at the same time giving a large tractive power by the fact that the weight is on all the drivers, extending considerably beyond the rigid wheel-base.

One of the chief advantages of this arrangement is the elimination of the slipping of drive-wheels. If the drivers of one section should slip, the unbalanced power is automatically equalized, and the slipping drivers are compelled to get a fresh grip on the rails without loss of energy to the whole.

By the American Locomotive Company's system of compounding another great advantage is obtained for the Mallet engine. When so desired, the locomotive can be operated as a single-expansion engine, and about twenty per cent additional power gained.

The engineer can, at will, open a valve which will cause the high-pressure cylinders to exhaust directly into the atmosphere, and will cause live steam to be fed directly into the low-pressure cylinders. With this additional power, the tonnage that a Mallet engine can move is almost incredible.

Operated as pushers, they add enor-

mously to the capacity of ordinary engines which, helped by the Mallet up the grades, can pull a much larger load over the level than their average rating. As road engines, the capacity is double that of the ordinary engine. They are now being adapted for passenger service, and there is no reason to believe that the advantages they will show over the ordinary passenger engine would be just as pronounced as they have been in the freight service.

Already, numbers of them have been constructed by the American Locomotive Company for foreign countries, including South Africa, Brazil, France, and Colombia.

The difference between foreign and American railroads is noticeable here. The heaviest Mallet engine built for foreign roads is that for the Central South African railways, which has a total weight of 225,000 pounds, and a weight on the drivers of 192,500, although the tractive power of the engine built for the Central Railway of Brazil is larger, the total weight of 206,000 pounds being all on the drivers. The weight on the drivers of the engine built for the Erie Railroad is 410,000 pounds.

Mellin's first Mallet was four times as large as those which had been made abroad, and last year one was made for the Southern Pacific five times as big. Now the Baldwin Locomotive Works is adapting it to the passenger service.

It took forty years for the railroads to realize the value of the Mallet, and the inventor has had comparatively little return on his patents. If it had been taken up twenty years ago, as it should have been, he would have reaped a fortune.

HATS AND BAGGAGE-CARS.

MILLINERS responsible for the mushroom hats are not happy, for the express companies have given the business a fatal slap in the face by so steadily advancing their rates on this kind of freight that they are twice what they were in 1906, and complaint has been made to the Interstate Commerce Commission. The matter is, therefore, now under investigation. The executive of one of the companies says:

"When we first began making rates on women's hats, the hats were small, neat,

compact affairs that looked like a pat of butter, and were fastened to the wearer's head with a bit of string. We charged by the pound at that time. Since then the hats have been growing steadily in width, length, height, and the fourth dimension, but they haven't grown an ounce in weight.

"Why, five years ago you could get from 500 to 3,000 women's hats into an ordinary express-car. Now you have to take the double doors out to get one in."—*San Francisco Call*.



BUCEPHALUS, THE AVENGER.

BY EDWARD C. FELLOWES.

Drisko Sniffed the Cool Breeze of Freedom, but Clancy Was Not Outplayed.



CLANCY was an artist at his job. The construction gang was working up alongside the Pauguk River, double-tracking the division, in order to accommodate the growing freight traffic from the brass mills at Fountainville. It was narrow between the river and the bank; and for three miles the steam shovels had to gouge out on one side and fill in on the other, with five hundred thousand yards of rip-rap to hold the fill against the spring freshets.

There were three shovels in commission—two of an ordinary type, and Bucephalus, a monster fresh from the shops, with a capacity of ten cubic yards of earth at a single bite and with steel fingers along his bucket-rim for handling stone.

Clancy was crapeman on Bucephalus. Under the corrugated hood of the great machine his engineer hoisted and lowered on signal, while the striker kept watch to see that all was clear; but it was Clancy, perched upon his little platform, halfway up the arm of the big crane, who controlled the thrust of the dipper-bar, going just deep enough to fill the dipper at the highest point in its rise—nibbling cunningly about the boulders which now and then cropped out in the bank, removing their visible means of support, until they were persuaded to

take a tumble, when he would deftly gather them in and swing them over to the flats waiting in a long line for the journey to the dump.

This was no greenhorn's job. It took judgment born of long experience, and an eye which could measure distances to a hair, to gage the cutting in the bank, load the dipper exactly full so as to economize time and power, and draw the latch at precisely the right moment as the crane swung the load over the cars.

Clancy, possessing both eye and judgment, was, therefore, an artist. He thought of nothing but his job. He loved Bucephalus, whose first master he was, as though the monster were a clever animal.

He would talk to him while at work, pat him and clean him and oil him when off duty, as though the future of the Pauguk road depended upon his being kept in good humor and condition.

One passion, and one only, besides his love for Bucephalus, found room in Clancy's soul. Being an Irishman, it might be supposed that this was for either mountain dew or a pretty girl; but the craneman never drank, needing the clearest of heads for his work; and as for women—he was a staid married man with a growing family of his own.

Clancy was deeply in love, however,

and the object of his affections was another Irishman.

It would be hard to say what there was in Christy O'Hara to inspire the sentiment. He was built like a baboon, with great flat feet, ungainly arms which hung far below their proportionate point. He had fiery red hair growing like bristles above a receding brow, and his china-blue eyes gave back the light without a flash of soul.

He was boss of the train gang—a small army of trimmers and shovellers, who were designated by numbers instead of names, and recruited from many lands. Many of the gang were Italians; a dozen or so, however, were of those strange nationalities known to ethnologists as Lithuanians, Slovaks, or Ruthenians, for convenience, usually lumped together by the inaccurate under the generic name of Polacks. O'Hara contemptuously designated them as "dagoes."

Over this cosmopolitan aggregation the train boss ruled. His authority was absolute. His genius lay in "speeding," and "speed" them he did, with abundant language which, uncomprehended save for its oaths, drove all hands for records in trimming and unloading, while Bucephalus and his humbler mates supplied endless material for their energies.

Among the Polacks was one, Drisko. Drisko was cursed with imagination. A sullen-browed giant, he was conscious of generations of noble barbarian ancestors, who had lived in castles in the heart of Bohemian forests, busy with raids, forays, and reprisals, singing lays of wild minstrelsy, sleeping all night in the form of the cross before cathedral altars in order to consecrate in advance their errands of robbery and bloodshed.

Echoes of this past rang in the soul of Drisko, a medieval soul, dwelling in a twentieth-century body, compelled to handle, day after day, a Collins shovel and endure the curses of a ribald Irishman.

It was in this grotesque inappropriateness of actor and setting that the germ of tragedy was slowly ripening.

Clancy and O'Hara were together under shelter of the hood of Bucephalus on an afternoon too wet for work even

under the inexorable speed law of the train boss. The gang were in their shanties scattered along the edges of the cut. Clancy, a bunch of waste in one hand, an oiler in the other, paused in his work about the engine, and looked at his chum.

"Jack, me b'y, the big dago has it in for ye; do ye watch out for 'm."

O'Hara withdrew his pipe from the corner of his mouth. He glanced up with affection at the craneman.

"I'm watchin' out all right, all right. I'm not afeared of 'em."

Clancy drew nearer.

"Ye're not afeared of 'm. I know it, and in a fair fight I'd back ye; but 'twill be no fair fight. He'll get ye some evenin' in the dark, or lay yer out wid a bar when ye're unsuspectin'. He's lookin' every day for his chance, an' I warn ye, Jack," he added, with a hand upon O'Hara's shoulder.

For the fraction of a second the train boss allowed his stubbly cheek to rest against the rough paw of his mate. Then both men assumed an air of indifference. Clancy mounted to his platform and tried his levers, and O'Hara, turning the collar of his jumper up about his throat, dropped from the car and slushed off through the mud toward his shack.

Clancy's warning was not thrown away upon the train boss. For some time he had been conscious of unrest among the crews. There was nothing overt as yet, but the keen instinct of the Irishman, accustomed to handling rough gangs, had smelled trouble in the air, as a sailor smells a storm.

Long before his men were conscious of it, he felt the psychic disturbance and knew that something was brewing. With watchful eye and ear he went about his work. Day by day the train-crews trimmed their cars, fed by Bucephalus, as diligently as ever. Day by day the spur track advanced, the river channel straightened, the rip-rap grew as the bank disappeared and the fill progressed; still nothing happened to justify O'Hara's suspicions.

Too wise to seem anxious, he made no move himself. As long as the work went on according to specifications, what more did he want? So he watched and

listened, and speeded his gang, with Drisko—cursed by his imagination, his medieval soul linked to his twentieth-century shovel—at their head.

O'Hara did not distrust his suspicions. Too often in the past he had known riot to spring up only after a long period of incubation. The quieter things were, the more he increased his vigilance.

He kept rigid tally of his equipment, prowled around the shanties at night, to catch a chance word; and still nothing. He had little fear of his Italians. Hot in temper they were, and quick to flare up at a moment's notice; but it was only a flare, not a flame.

As a rule, they were cheerful and willing. When he "speeded" them, they took a hitch of their eternal leather belts, grasped their shovels a little more firmly, and, with a grin, added one more notch to the pace, which, deceptive in its apparent deliberation, would continue unwearying and unflagging for hour after hour, until Bucephalus blew his whistle for knocking off.

Of the Polacks the boss was less trustful. Somber, brooding, their thoughtful eyes turned inward upon their past, they seemed always to work under protest.

With these people, it was likely to be a slumbering resentment, cherished and fostered, bursting suddenly into eruption, which was to be feared. O'Hara understood them less, so he watched them with greater care.

It was only after some weeks of catlike vigilance that the train boss came upon anything which might be construed to mean trouble. Scouting through the brush near the shanties one night, he stumbled over a pile of weeds, which, pulled apart, revealed three kegs.

O'Hara kicked them. They were full. How they got into the camp was

a mystery. Supplies for the men came by rail, and were unloaded under supervision of a company checker.

The nearest town was four miles away, the sole communication being through the baker's wagon, which once each day delivered its tally of three hundred long, shiny loaves; but these also were counted as they came from the wagon, and nothing else could possibly be smuggled in with them.



O'HARA KICKED THEM. THEY WERE FULL.

Still, it was less the mystery than the fact which troubled O'Hara, for liquor was strictly forbidden except under special circumstances, such as were defined by the company.

The presence of these kegs was in direct defiance of discipline. O'Hara sat down on one of them and ruminated. Finally, he rose with an air of decision, drew the weeds again over the pile, and set off toward his shack.

"Watch Drisko." That was the key to the situation. If trouble came, it would be through him, for he alone possessed the qualities of a leader.

Too much imagination was his defect—an unpardonable defect in such a man. He should have been an automaton with

a number; he insisted upon being a living creature which thought. For this reason the train boss bore him a grudge, which showed itself only in the pale fire of his Irish eyes as he "speeded the gang," and was recognized by Drisko only in the sullen glow of his own dark orbs.

The antagonism was there, however—a continual throwing down of the gauntlet, and a continual acceptance of the challenge—nothing wanting but opportunity for the outbreak.

The day after the discovery of the hidden kegs, work began apparently as usual, with no signs of anything aside from the ordinary routine.

Time had been lost by two days of rain, and must be made up somehow, and O'Hara was the man to see that it was made up. When he began to call for speed, he noticed among his men an air which attracted his attention, not among the Italians, who responded to the extra pressure with the accustomed grin, but among the Polacks.

Drisko wore an expression more nearly resembling insolence than he had ever shown. The others seemed to watch him, casting furtive, sidelong glances from time to time, as if expecting a signal, and adding little if any energy to their operations under the sting of the language produced by O'Hara for their benefit.

The dump was half a mile from the point where the steam-shovels were at work in the cut. At the particular spot where the cars were unloading, the temporary track ran close to the river, with scant space for a man to stand between the outer rail and the steep bank sloping to the water's edge.

As the first train-load stopped, the boss was standing in this narrow strip, and, as it happened, just abreast of Drisko's car.

The crew hastened to remove the side-boards, and a heavy plank, carelessly handled, slipped from the stakes and struck O'Hara, bruising him from hip to ankle, and all but sending him into the river.

Scrambling to his feet, his eyes ablaze, his tongue unloosed, the angry man shook his fist at Drisko, pouring out a torrent of invective against Polacks in

general and Drisko in particular. The big foreigner, leaning on his shovel, watched him like a cat.

Incensed by this calmness, O'Hara foolishly passed the limit by using a single epithet in the Polack jargon which conveyed the deepest possible insult. In a moment, Drisko leaped, the heavy steel shovel swung high above his mighty shoulders, descending with a crash upon the skull of the unfortunate boss and driving his body, like a log, to the foot of the embankment. There it lay, half in the water, a red tinge spreading slowly in the stream.

In a second Bedlam was loose. The Italians, huddling together with popping eyes, jabbered like monkeys. The Polacks rushed to Drisko's car, where the giant, holding aloft his fatal shovel, stood like a vengeful Colossus.

Seized with uncontrollable panic, he threw down his weapon and fled, running along the loaded train, leaping from car to car. It was this course which proved his undoing. There was quick Irish wit in the cab of the switcher, coupled as it happened, midway of the train, ten cars behind and the same number before.

Yelling to his fireman to cut loose from those in the rear, Murphy, the instant his engine was free, threw his throttle wide for full speed. The long line of loosely coupled flats joggled with a sudden commotion which upset the fleeing Polack.

He lost his balance and fell, clutching wildly, his arms buried to the elbows in the soft earth of the load.

When he regained his feet, the train had gathered such headway that he dared not jump. Yet to remain where he was would be fatal, for already the cut was in sight. A minute more would bring him into the midst of the grading gang.

Drisko was paralyzed. Behind him the engine shrieked, a succession of short, piercing blasts that spoke of danger. Murphy was calling for help. Drisko, looking up the track toward the sound, could see men running from their work.

Clancy, at his post on Bucephalus, leaned far out from his platform and peered under his hand at the rocking cars as they roared out into the open, the crouching figure of the Polack at the front. Abreast of Bucephalus, Murphy

gave her the air. The train brought up with a crash which caused the light, single-truck flats to buckle and rear like broncos, and Drisko, unprepared, shot sprawling to the ground.

He was up in an instant, running like a hare, as Murphy shouted the news to the amazed spectators. At once the hunt was on. Down the track fled the Polack. A group of shovelers ran at him from the ditch. Back again, in and out among the shanties, dodging among the tool-boxes, dropping to the ground to slip under the cars—but at every point there rose a figure with pick or bar to head him off.

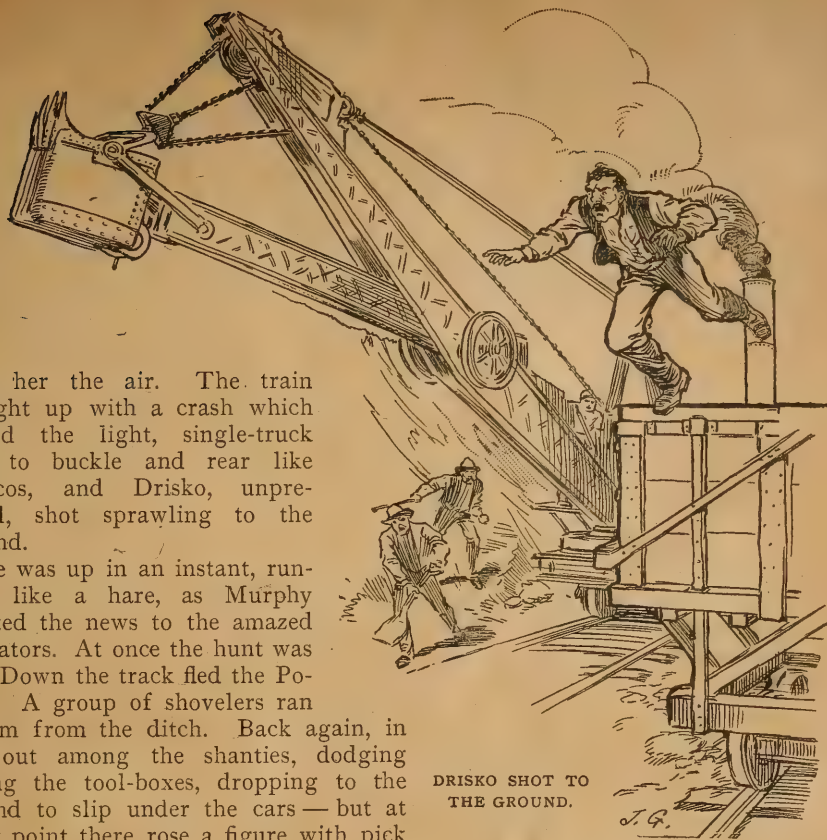
The circle was closing. There was open space on one side—toward the bank. Drisko darted that way, upsetting a single opponent. Up the slope, clinging, crawling, sliding, digging with toes and claws—his heart pounding, the breath whistling in his chest, a wild hope before him of reaching the top of the bank and seeing the open country of freedom.

Taken by surprise, for a few moments no one made a move to follow him. Suddenly they rushed the bank in pursuit. Overhead, Drisko turned and cursed them. He threw stones upon their heads and he dashed handfuls of sand into their eyes.

Blinded and at a disadvantage, they faltered in the sliding earth. Drisko turned again like a wild-cat at the bank.

He fought his way up with nails, with elbows, with knees.

The fringe of green turf along the edge of the slope, the grass waving in the breeze, grew nearer, nearer still.



DRISKO SHOT TO
THE GROUND.

Almost up! a moment now, and he would be safe!

A huge black shadow enveloped him. He looked. Poised in the air over his head was the great bucket of Bucephalus. It swung swiftly down and rested on the edge of the bank in front of him, barring the way.

Drisko glared. He turned and looked down and saw Clancy standing on his platform half-way up the arm of the crane, his hands on the levers, his face white as paper, his eyes riveted upon the figure above.

Cold sweat trickled upon the Polack. A mortal terror clamped its hand upon his heart. He knew Clancy's friendship for the dead man. He knew how the huge machine responded like a living thing to the will of the craneman—and hope deserted him.

He rested, his gaze fixed on the waiting groups below. Desperate anger seized him. He shouted and shook his

fist at the great steel bulk which stood between him and freedom. Then like lightning he dashed up the slope trying to skirt the bucket before Clancy was aware of his purpose.

But the Irishman was ready for him. The bucket lifted a little from its place, brushed silently along the grassy edge, and came to rest again just in front of Drisko. He waited, then he tried the same tactics in the opposite direction, and again the bucket floated quietly before him, barring his path.

Drisko began to grow calmer with a deadly calm. Clancy was prolonging the agony. He was playing with him—delaying the moment when he would finally finish him.

The men at the foot of the bank knew this. They were watching. They knew Clancy. He would do the trick.

Drisko looked at the bucket, and began to think. He measured the bank with his eye. He regarded the crane with atten-

tion. He knew that it had a definite radius of operation beyond which it could not go, until its car was moved along the track.

But Bucephalus was already at the end of the spur, which ran out into the sand at the base of the hill. Drisko took courage. Safety could yet be found in one direction—away from the zone within which the crane was free to act.

The cunning Polack edged an inch toward the left. The movement passed unnoticed. Another inch. Clancy did not stir. He might make it with a rush. In order to disarm suspicion, he stretched himself as though in utter exhaustion—he spread-eagled on the slope.

To the watchers below it seemed as if he had given up. Instead, he was gathering all his energies for the final effort.

He rolled his bloodshot eyes upward. Ten feet! It was not far. If he could make it, he was safe. Clancy could not touch him. He must make a diagonal,

for thus he would gain both in lateral distance and height.

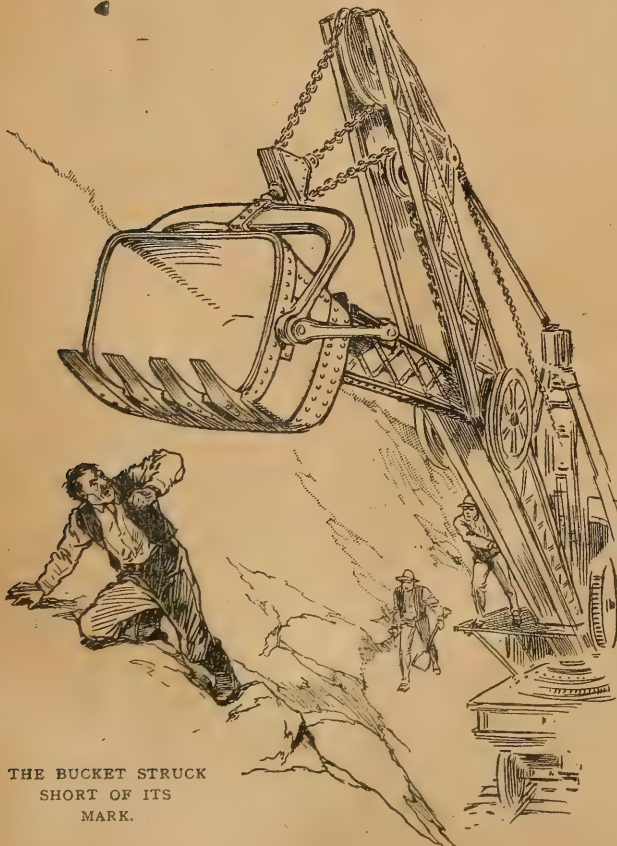
Lying motionless, Drisko contracted toes and fingers as they clutched the soil. Suddenly he sprang.

Five feet! Eight feet! He would make it! One more supreme effort!

Clancy had been taken by surprise. Anticipating a move in the opposite direction, where the bank was less steep, he was unprepared for the cunning exhibited by the Polack. But he acted like lightning.

Already his crane was swung to the left as far as it could go. He thrust the bucket-bar after the fleeing Drisko, the great scoop swinging at its end. For once his eye played him false. The bucket struck short of its mark, and checked impotently a foot behind its object.

A yell of triumph burst from the Polack. With-



THE BUCKET STRUCK
SHORT OF ITS
MARK.

out seeing it he felt the failure of Clancy to seize him. Another short scramble and he was safe. He could almost feel the free air of the open country blowing about his ears, and in the ecstasy of his joy he turned in his tracks to shake his fist at the baffled engineer.

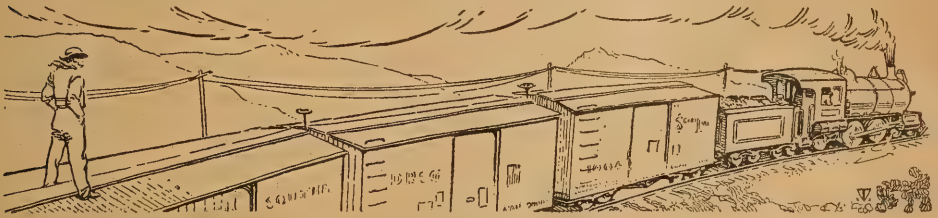
The move was fatal to the unfortunate Drisko. Though Clancy had been checked in his last effort, he was not yet outplayed.

The bucket slid swiftly down upon its cable; again it started in its ascent. Its steel lip bit deep into the bank behind and beneath the exulting fugitive. It swung aside, leaving a huge cavity; and into the opening, buried in tons of slip-

ping, sliding soil, whirled the helpless form of the Polack, with staring eyes and clutching hands.

Clancy drew the latch, and the bucket yawned and disgorged its load. The hinged bottom slammed shut.

Once more the boom shot out. Once more the steel lip bit into the bank—the cable singing through its pulley. The great crane turned upon the pivot—and when Clancy drew the latch, there plunged headlong to the ground, amid the group of waiting men, the limp and crumpled body of Drisko, who should have been an automaton with a number, but who had insisted upon being a creature which thought.



RIGHTS OF A SHIPPER.

A SHIPPER was recently threatened with direful consequences in Fort Worth, because he dared open his car and inspect his own goods, which will likely bring to a constitutional test at once the question of shipper's rights.

An Oklahoma man consigned a car-load of corn to himself in Fort Worth, and arrived on a passenger-train several hours before the freight. The bill of lading, as usual, went to the bank, but by the time the corn was ready for inspection the bank was closed, and the shipper was unable to prove ownership to the car in the prescribed way. He informed the railroad officials that he would open the car and inspect the corn without this formality. They threatened to institute legal proceedings if he should break the seal on the car-door. Not deterred by these threats, he entered the car, and took a long look at his corn, whereupon the rail-

road's attorneys announced that the court would be appealed to.

A proceeding of this kind will bring into the courts the question of a shipper's authority over his cargo. The judiciary will decide whether the shipper can break a seal on a car and look at the contents before proving ownership to that car, even though, as in this instance, the proof is locked in a bank vault, and the cargo needs attention.

This is the first time in the history of Texas railroads that such a pointed instance has arisen, and railroad men, as well as shippers over the Southwest, will watch the outcome.

The railroads have good reasons for refusing to allow these seals to be broken. For instance, if the wrong man should open a car of corn, the original shipper or consignee might turn it back on the railroad, and force the company to pay damages.

POWER FOR THE GREAT NORTHERN.

GREAT NORTHERN engineers have begun work in the Lake Chelan district for development of 80,000 horse-power of electrical energy to be used in operating the western division of the railroad. Title to the power-sites was secured several years ago.

The Great Northern is now running its trains through the Cascade Mountain tunnel by electric power, but the Leavenworth station, which supplies the current, develops only 12,000 horse-power. It is one of the largest electrification plans on record.

The Founder of the C. P.

BY ARTHUR B. REEVE.

BACK in the early '50's, when almost every other man said that a railroad across the mountains of the Far West, joining East and West, was an absolute impossibility, Theodore D. Judah stolidly took the other view. Even in the face of seeming insurmountable financial and engineering obstacles, nothing could thwart the purpose of that great man. He simply said: "It *must* be built. I *will* build it."

And he did. The story of the winning of the West has been told many times, but Theodore D. Judah deserves the "nation's crown of glory." But for him a work which has inspired the admiration of engineers and the pens of romancers might have been delayed for years.

He was a maker of railroads and a maker of history.

How Theodore D. Judah Saw the Possibility and Turned the Dream of Joining the East and the West by Rail into Reality, by Hard Work and Indomitable Purpose.



WHO was the father of our transcontinental railroads? Perhaps you have thought it was Leland Stanford, or Collis P. Huntington, or Mark Hopkins, or Charles Crocker, or maybe all of them combined. They, indeed, have had the credit—and in after years whatever debit there was, too, for this early example of how a great project can be ultimately "high financed."

Then, too, there were the dreamers of the fifties, who talked long and confidently of their schemes to unite the two oceans—Asa Whitney, Hartwell, Carver, and the rest. Though they never really built a mile of the roads, they have received precious little credit for getting people interested in the idea.

But the real father of the Pacific roads, the man who made practicable the plans of the dreamers and actually interested the money of the doers—the man who literally gave his life to the project—he to

whom credit is really due, is a man whose name you will not find in any of the biographical dictionaries or histories—Theodore D. Judah.

If this article succeeds in restoring his name to its rightful place in railroad history, it will have accomplished its purpose. Any one who cares to delve back in the dusty files of Congress in the early sixties, or the time-stained first reports of the old Central Pacific, can verify the work done by Mr. Judah.

Intended for the Navy.

Theodore Dehone Judah was born in Bridgeport, Connecticut, March 4, 1828. He was the son of the rector of St. John's Episcopal Church. His father came of an early Connecticut family. His mother was from Virginia, and the boy was named for an uncle, Theodore Dehone, bishop of the Episcopal church of that State, his father's closest friend.

Mr. Judah's parents intended that he should enter the navy, but he did not re-

ceive the expected appointment. He was then sent to the Troy Polytechnic Institute, also known as Rensselaer, which was then the only school of its kind in the world.

There he was educated for engineering, and while he was still a student at Troy "Tech" his father died, and he had to take care of himself.

The railroad was then a new industry. It fascinated him. His first position was on the engineering staff of the Troy and Schenectady Railroad. His career rapidly broadened. Next he went to the New Haven, Hartford and Springfield Railroad, the Connecticut River Railway, and the Buffalo and New York Railway, now known as the Erie.

His next position was on the Erie Canal, where he built a section between Jordan and Seneca Falls, New York. From there he undertook the construction of the Niagara Gorge Railroad. This was discussed widely in the newspapers of the time as a feat.

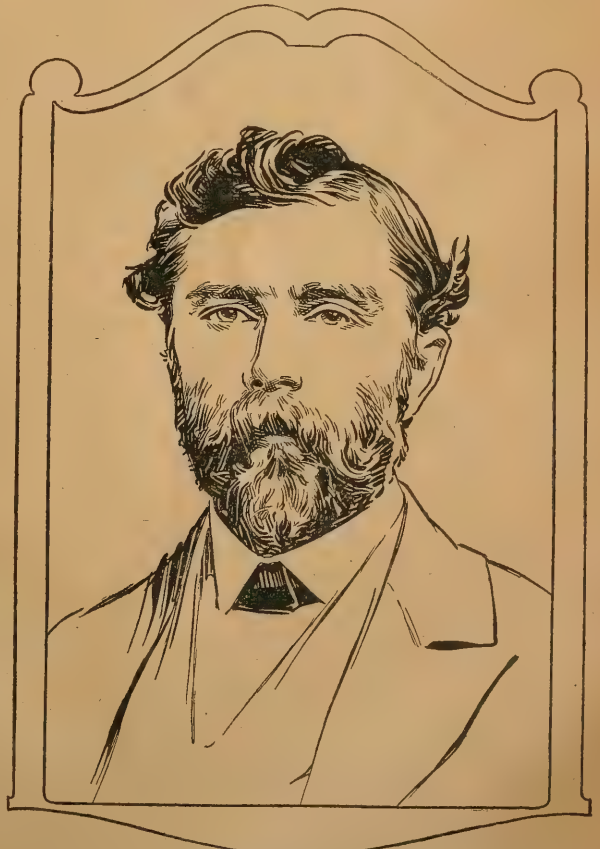
It attracted the attention of some people of Sacramento, California, who were looking for an engineer to build a road from Sacramento to the gold-diggings of Folsom. Judah was recommended by Horatio Seymour, of Utica, afterward Governor of New York, and was hired by Colonel Charles L. Wilson, of Sacramento. Thus he came to be associated with the great work of opening up the Pacific coast by railroad.

When he was only sixteen he had been inspired by the agitation of Asa Whitney for the construction of a railroad across the continent. Whitney was an engineer of note, who had worked on railroads in the Mohawk Valley in New York. He had been canal commissioner, a former president of the Reading, a partner of Matthew Baldwin in founding the Baldwin Locomotive Works, and the inventor of the process for making cast-iron annealed car-wheels, which made them durable and safe.

During the fifties Whitney had advocated the building of a railroad westward from Lake Michigan across the plains, through the South Pass of the Rockies, and then over the Sierras to San Francisco.

John C. Fremont had traversed the route, and had declared such a project feasible. Senator Thomas C. Benton had already introduced a bill in Congress for a national highway across the continent by rail wherever possible, by wagon elsewhere; but it had not been passed. In 1853, Congress ordered surveys made, and five routes were laid out—all of which, by the way, are now approximately followed by the great transcontinental lines.

Whitney's scheme was utterly fantastic. He expected the government in the first place to agree to give him in all ninety-



THEODORE D. JUDAH,

BY WHOSE UNTIRING WORK THE CENTRAL PACIFIC ROAD WAS CONSTRUCTED.

two million acres of public lands as he carried his road ahead. Dr. Carver's scheme was equally, if not more, extravagant. Even at this early date there were those who saw through such demands, like William M. Hall, who believed with George Wilkes that the government could best construct the road itself.

Others — like Plumb, Loughborough, and Degrand—proposed equally injudicious schemes. Judah was convinced that private enterprise should do it, but that government aid of a more moderate kind would be sufficient. In 1860 the Republican party was pledged in its platform to accomplish this undertaking.

In those early days in California Mr. Judah was the leading engineer in all railway enterprises. After completing the Sacramento Valley Railroad—thirty-two miles to Folsom—in February, 1856, he undertook to interest capitalists of San Francisco in the project of a trans-continental road. Failing there, he devoted his time to the moneyed men of Sacramento. He believed that the road should be pushed eastward, overcoming first the most difficult obstacles, that with the Sierras surmounted, the Rockies and the plains were easy. The remainder of his life was devoted to this work.

All of his time, from the spring of 1856 to the fall of 1859, was spent in Washington, lobbying for a bill granting public lands for this purpose. Congress at that time was torn by sectional strife between North and South, and in no mood to seriously consider uniting East and West. Little real interest was paid to Judah's plans.

Called in the Public.

When Congress finally adjourned in 1859, Mr. Judah returned to the Pacific coast to take up the fight at the other end. There he organized a convention of delegates from almost every county of California, Oregon, Washington, and Arizona. It was a large and enthusiastic convention, and he was the spirit of it.

He laid before them all the information he had gathered on the various routes available, and they chose one over which the Central Pacific was substantially constructed as first outlined by him.

He was appointed by the convention its official agent to proceed to Washington, present copies of the proceedings to the President, the Cabinet, and Congress, and urge the passage of an act that would insure the construction of the road.

For the two following winters he labored in Washington, making but slow progress. Then the war broke out. It was evident that such a period was anything but favorable to such a project, so he returned to the coast.

Although he had spent over \$2,500, the only expense bill he submitted was forty dollars for printing. Meanwhile, he was organizing his forces in California to continue the agitation in Washington.

Failing to convince San Francisco, he succeeded in interesting a group of merchants in Sacramento. They organized the Central Pacific Railroad Company on June 28, 1861, under the laws of California. It had a capital stock of \$8,500,000 in shares of \$100 each.

The Original Owners.

The articles of association show nine persons—Leland Stanford, who dealt in provisions and groceries; Charles Crocker, who, with his brother, ran a dry-goods store, including a job-print shop; Collis P. Huntington and Mark Hopkins, partners in the hardware business; James Bailey, L. A. Booth, D. W. Strong, Charles Marsh, and Theodore D. Judah.

Among the first subscribers for stock, Bailey, Crocker, Hopkins, Huntington, Judah, and Stanford each took 150 shares; the others less. Stanford was the president; Huntington, vice-president; Hopkins, treasurer; E. H. Miller, Jr., secretary; E. B. Crocker, attorney, and Judah, chief engineer. They were also the first directors.

Judah organized engineering parties, and ran barometric lines over twenty or more suggested routes. All the results tallied with his first observation: that Donner Pass was the easiest way over the Sierras, both for distance and grade.

He proposed to follow the Truckee River from the outlet of Lake Donner, about fourteen miles north of Lake Tahoe, and then go through the eastern range of the Sierras and the Humboldt

Desert. The distance from San Francisco to the Truckee River was 123 miles, and to the State line 145 miles.

More Work in Washington.

His report having been made, Mr. Judah was again sent to Washington. He met the members of the House and Senate Committees on the Pacific Railroad, and was appointed secretary to both committees, with the privilege of the floor in both houses. After many compromises the Pacific Railroad act was passed July 1, 1862.

The original act provided briefly for the construction of a railroad and telegraph line from the Pacific coast at or near San Francisco to the eastern boundary of California, across Nevada, and to the Missouri.

For all practical purposes it was as if simultaneously from the wilds of western Nebraska, at about Omaha, and from Sacramento, two roads—one westward, the other eastward—were to be built—the Union and Central Pacific, respectively—until they met.

The war seriously interfered with the Union Pacific project; and, though the first tracks were laid with much ceremony, little was done to push it. Five branches had been planned to the largest Western cities along the Mississippi and Missouri. At that time eight or ten thousand prairie schooners, carrying yearly 40,000,000 or more pounds of freight, set out from the frontier cities. The only other way was by Panama. The need was, therefore, pressing and growing rapidly.

The Issue of Bonds.

The Secretary of the Treasury was instructed to issue bonds to the company constructing the roads at the following rates: From the coast to the Sierras (about 120 miles), at the rate of \$16,000 a mile; across the Sierras (about 150 miles), at the rate of \$48,000 a mile; across the Great Basin (about 900 miles), at the rate of \$32,000 a mile; across the Rockies (about 150 miles), at the rate of \$48,000 a mile; east of the Rockies (about 650 miles), at the rate of \$16,000 a mile.

Figuring the public land at about ten million acres, bringing at least \$1.50 an acre, it will be seen that very substantial aid was thus given without the subscription of much private capital. The total cost was supposed likely to come to \$100,000,000, and each road was to bear approximately half.

The Central Pacific also received further grants from other sources. The State of California agreed to guarantee the interest on bonds to the extent of \$1,500,000 for twenty years, which alone was calculated to amount to \$3,000,000. The city of San Francisco made a loan of \$400,000 of city gold bonds at seven per cent for thirty years, and Sacramento gave thirty acres, including 1,300 feet of water-front, worth some \$300,000. Private stock subscriptions at various times up to the completion of the road amounted to four millions more.

This original act provided that the company must build the first fifty miles within two years following its acceptance of the terms, and fifty miles additional each succeeding year. In December, six months after the passage of the act, the company assumed the responsibility of carrying it out. Mr. Judah lost no time in filing with the Secretary of the Interior the necessary maps and papers relating to the route so as to secure the withdrawal from sale of land along the line.

Many Obstacles.

He made arrangements in New York for rails and other equipment for the first fifty miles. All this had to be shipped by sea. It was ten months before it reached San Francisco. Though the grading was actually begun the following February, it was not until October that the first equipment arrived in Sacramento.

Nothing can better demonstrate the character of Mr. Judah's services than the following letter, which was subscribed to by forty-two members of Congress and seventeen Senators:

WASHINGTON, June 24, 1862.

T. D. JUDAH, ESQ.:

DEAR SIR: Learning of your anticipated speedy departure for California, we cannot let the opportunity pass with-

out tendering you our warmest thanks for your valuable assistance in aiding the passage of the Central Pacific Railroad bill through Congress. Your explorations and surveys in the Sierra Nevada Mountains have settled the practicability of the line, and enabled many members to vote confidently on the great measure, while your indefatigable exertions and intelligent explanations of the practical features of the enterprise have gone far to aid in its inauguration.

Very truly yours,

JAMES H. CAMPBELL,

Chairman, Select Committee on Pacific Railroads.

Surveys were again made in October, 1862, and five possible routes over the Sierras were laid out for final consideration, according to the last report made by Mr. Judah, July 1, 1863. That chosen lay from Sacramento to Auburn, Illinoistown, Dutch Flat, and by Donner Pass, the first fifty miles carrying it to New England Mills.

He gave the estimated cost of this first division for grading, masonry, bridging, ties, track-laying, locomotives, cars, machinery, shops, and all other contingencies as \$3,221,496, including a large bridge over the American River. The contractors for the first eighteen miles were C. Crocker & Co.

The first six locomotives ordered show the "state of the art" at that time:

Name.	Weight, tons.	Number of drivers.	Diam. of drivers, ft.	Diam. of cylinders.	Stroke, ins.
Gov. Stanford.....	46	4	4½	15	22
Pacific	47½	4	5	16	24
Atlantic	47	4	5	15	22
John Conness	50	6	4	17	25
T. D. Judah	18	2	4½	11	15
C. P. Huntington...	18	2	4½	11	15

The First Equipment.

There were six passenger-cars, two baggage-cars, twenty-five box cars, and twenty-five flat cars. The rails were twenty-four feet long and weighed sixty pounds to the yard, 6,000 tons being the first order. The ties were of redwood, 68,100 for the first section.

After the first eighteen miles was completed and running seven months, ending November, 1864, the road had carried 48,941 passengers. Its receipts were

\$103,557; operating expenses, \$56,289, and net profit, \$47,268. Not a bad first report.

Trains ran at an average speed of twenty-two miles an hour, including stops. The whole fifty miles were completed September, 1865, time being extended.

When it had become evident that, in spite of the energy with which the work was being pushed, the first fifty miles could not be completed within the original two years fixed by Congress, Judah again sailed for Washington, October, 1863, to secure an amendment to the act.

He chose the quickest route, Panama, and while crossing the isthmus was stricken with Panama fever. He died in New York, November 2, 1863, a martyr to one of the greatest industrial projects the world has ever known. His place was taken by Samuel S. Montague as acting chief engineer.

He Made History.

Mr. Judah married Anne Pierce, of Greenfield, Massachusetts, May 10, 1847, in St. James's Church of that village. She died September 2, 1895. They left no children. His nephew, H. R. Judah, is now assistant general passenger agent of the Southern Pacific in San Francisco.

Though he died at the very outset, the work he began was bound to go on to completion. The final meeting of Central and Union Pacific, and the driving of the last spike at Promontory, a few miles west of Ogden, Utah, on May 10, 1869—1,084 miles from Omaha and 850 from San Francisco—the rise and dominance of the powerful system; the building of other transcontinental systems—seven of them now—the reorganization of Union and Southern Pacific, and the entrance of Harriman—these are now but the nuggets of history.

Theodore Dehone Judah was the real founder. He was the most influential advocate, and he had the brains. His manifold talent in engineering and in interesting practical men of politics and finance really made possible the stretching of the first great steel arms across the continent. Had Judah lived, he would have stood forth as one of the great figures in American railroading. It is not too late even yet to give him his just place.

GONE MAD WITH THE HEAT!

BY EDGAR FRANKLIN.

Belcher Was Tired of His Job, and Had a Peculiar Way of Showing It.



HE sound called, in Wilkes's lazy way—Wilkes up the line at Bradford—and Belcher awoke from his doze and answered.

"Seen the president?" inquired his sounder.

Belcher ticked back that he had not, and inquired if there was any news.

The sounder said: "Old man's either gone through on one of the fast trains or is going through. Stop his train and thank him for me. Now, shut up!"

Belcher snarled as he turned away from the table. That was Wilkes's facetious way of saying "Good morning" over the telegraph wire. It made him tired.

Everything made Belcher tired. He rose wearily and shuffled out to the little platform of Raynor Station. Twelve years of looking at that platform had made him dead tired.

He looked around. Down the line eastward, Belfield, presumably sweltering in the heat, and twenty miles away. Up the line, Bradford, another twenty miles away. North, an endless strip of flat Middle West country, uninhabited, offering no excuse for existence save as a haven for some solitude-loving salamander, quivering just now in the awful sun. Southward precisely the same thing, with the main road a mile away and out of sight, and the heat quivering more violently, if possible.

Oh, yes, it was unusually warm that day, Belcher reflected, as he glanced at the thermometer, and noted that, in the shade, it stood just 114! It was hot enough to make a man sit down again, so Belcher sat on the edge of the platform, his face in his dry palms.

Poor old Belcher! At thirty he looked forty, and felt fifty. He had entered the W. and E. service, right here at Raynor, when eighteen years of age, a graduated telegrapher at twelve dollars a week.

He had also assumed the duties of station, freight, and express agent, porter, ticket-clerk, track-walker and information bureau to the two or three dozen who detrained there monthly. And he still earned twelve dollars a week.

Not that he had not been buoyant and ambitious at first. Why, at first, he would have bet ten years of his existence that he'd be chief train-despatcher, at the very least, by this time. But the monotony of the thing, the heat in summer and the cold in winter, the twice-a-day tramp, with the station, and Benker's shabby farmhouse at the respective ends, had worked into Belcher.

He had saved money weekly, to the tune of six dollars, to be sure, but after the first year he had no mortal idea of why he was saving it. He knew nobody, and he saw nobody, and he spent nothing. Unable, even after experimentation, to cultivate a taste for strong drink, and so drown his monotony, he was a total abstainer, and a total everything else, it seemed to Belcher.

What he wanted was to get out of Raynor Station, or get a substantial raise at least, and he hadn't ambition left to run down either. He'd written four times in the last six years to the president himself, and received no answer. He'd spoken to his immediate boss, and been told to fade away—that a good yellow pup for a watch-dog could attend to things at Raynor, and that twelve dollars a week was a hideous waste of money.

Now, with the blazing eastern rails blinding his near-sighted eyes, Belcher recalled drearily that he hadn't had ambition enough to argue the thing. What he needed was spunk. Monotony had knocked the last bit out of him, that was all. Belcher groaned aloud as he realized it through the flood of perspiration. He was lost, dead lost—at thirty!

His head had a queer feeling, too. He rubbed it stupidly. Probably it was the heat; Belcher didn't care much. He only wished he had the president sitting there in that soundless hell, to talk things over and say that he was sorry the matter hadn't been attended to before, and that he'd raise Belcher at least five dollars at once. If he didn't say that, Belcher had a notion that he'd throttle him.

With another groan, Belcher shuffled to the end of the platform and extracted from the closet something of his own contrivance—a sledge and a strip of iron, with a small spike at either end. Whether he felt lazy or not, he'd have to pull together that crack in the tie next the switch and keep it from spreading wide open before the track repairers finally worked around to replacing the tie—some seventy or eighty years hence.

Wearily, he shuffled across the track and looked the thing over. Yes, about two weeks more, or a good rain, and there'd be one tie split in two and a loose rail.

Why the devil didn't the company keep up their road. What did he care whether their stock was a mere two-per-cent solution of the first issue?

Wrath surged up within Belcher. He glared at the switch and the green and red, and white eyes glared back with a sort of fiendish grin at the twelve-dollar derelict.

Recognizing the insult as personal to himself, Belcher suddenly raised his sledge and, smashing the lamps, left the remains at an angle of perhaps fifteen degrees from the earth.

He felt decidedly better.

At least, he felt better for an instant, until he glanced back and realized, with a sort of sickly mirth, that he'd locked the switch tight, and the westward local, due in ten or twelve minutes, couldn't get into her siding to let the east-bound express go by!

There was no way of fixing it, the mechanism of that particular switch was locked or open, usually declined to operate with anything less than a hammer, and now it was twisted and broken bits! Still more, the morning express on mighty close time. And—

"What the dickens are you doing?" a loud voice buzzed into his spinning brain.

Belcher turned quickly. He stared. He stared harder still! As certainly as he breathed, it was President Bullton, black-clad, puffy, red-faced, the very gentleman with whom Belcher had wanted to hobnob—or slaughter!

"That was deliberate destruction of the company's property!" thundered the bulky man. "I saw it—"

Momentarily, he saw no more. Belcher's hard fist struck him in the region of the solar plexus, and he sprawled backward, with the lone station-agent doing a wild war-dance over him.

Mr. Bullton did not struggle. For the time he was altogether too dazed. Belcher stepped back and laughed somewhat wildly. Inspiration had fairly blasted into his dulled brain.

There was his strip of iron to hold the tie together; there was his sledge; there was Bullton's motionless foot and ankle, laid mathematically along the tie.

In five seconds Belcher was down on his knees, and had the spiked strip clapped over the silk-shod ankle. In another five seconds the spikes themselves were driven fast, with a nice calculation that would allow them to be pried off in ten seconds, but driven deeply enough that Bullton might struggle until he was exhausted unless he found a tool within reach.

Belcher tossed the sledge a dozen feet away, and grinned at his captive—grinned for a minute only. He sobered quite suddenly. To be sure, he had Bullton pinned down in such fashion that he was in no danger whatever, for the switch was locked at both ends; but—the two trains!

His head cleared up curiously, and he bounded across the tracks to the station and into the closet. He came out with flags and bulging pockets, and ran up track a little. He torpedoed the rails very thoroughly, and planted red flags between them. He raced back to the station, and halted a minute as he heard the Raynor call.

He answered. Then he fell back with a sort of whooping, laughing sigh of relief. The local was stalled away down at Belfield, and would wait for the express to pass there.

So, it was all right. Nobody risked being killed, after all. And as suddenly as the tension had been put on him, just as suddenly it snapped, and Belcher began chuckling and rubbing his head.

He would stop the express!

He'd throw his job gently into the air, and ride down to Belfield on the express. He'd have to throw the job now, anyway. He'd draw the accumulated hundreds that derived from the weekly six-dollar money-order mailed every Saturday night for twelve years at Raynor post-office. He'd go to New York and buy seven suits of clothes and an automobile and raise all thunderation for a week—and then commit suicide. He certainly would. He'd do just that. He needed a little change.

But—but what the deuce had he forgotten, just in the last few minutes?

Oh, yes! He'd nailed down the president of the road to one of his own sidings. That was it. Well, he'd go out and have a chat with him, and scare him just for fun.

Quite happily, therefore, Belcher tripped through the awful heat to where the bulky man lay prostrate, exhausted after a fruitless struggle with his bond. Belcher squatted cheerfully beside him, remarking:

"Well, old President Bullton, how's things coming?"

"Lemme up!" came hoarsely from the captive.

"Aw, wait a while," said Belcher pleasantly. "The train isn't due for two or three minutes."

"The what?"

"The train that's going to come into this siding full speed and make you into sausage meat," the station-man explained cheerily.

A shriek rose from the red, dripping man.

"Great Scott!" he screamed. "I'm not Bullton, if you mean the president of this road. I'm the secretary of a casket company that—"

"You'll get one cheap, then," Belcher commented.

"—is thinking of building near here. I just drove over from Raynor to look at

your freight platform and meet some of your business men—"

"So you're not Bullton!" gasped Belcher, with what seemed to him excellently quick and reasonable thought. "Well, then, if you're not Bullton"—he reached for the sledge—"the best thing I can do is to wipe you right out now."

A hoarse yell for help died away.

"Because, if you're not," explained the station-man, "you'll go to work and tell Bullton about this, and I'll lose my job."

"Well, I *am* Bullton!" choked the prostrate figure. "I'm Bullton, and—"

"Yes, I thought you was Bullton," said Belcher dryly, as he sat down again.

"Well, I'm Belcher. Remember, Belcher?"

"Oh, yes!"

"Then why didn't you answer one o' those four letters—hey? Didn't I ask you politely to give me a transfer to some live station, or give me a good raise if I had to stay here?"

"Why—they—they must have been overlooked, I think," stuttered the other.

"I—meant to give them attention, of course, but—"

"But it wasn't worth while, eh? It was all right to leave me down here, without even a human being to look at, from early morning till late at night; it was all right for me not to have a porter; all right for me to be doing laborer's work; all right for me to be tending to the express business and breaking my back with big boxes and galloping back to the key. All that for twelve a week, and not a cent of raise in twelve years. Oh, it was all right! But it's got you tied down good and tight now, and—by ginger, the express is coming!"

"Whatever your name is, let me up. I'll give you a raise. I'll give you a raise, to commence the day you took the job. I swear I will! I'll—"

"Oh, no!" said Mr. Belcher, who was enjoying things with a sweetly clear conscience as he observed anew the locked switches. "You think it over in the next world. See if flowers for the livin' aren't better than flowers for people you've killed off, and still made 'em keep on living."

"Man! I—"

"Why, if your old watered-stock road had spent the price of double-tracking

through here, you wouldn't be where you are now."

Then, oddly, brakes began to scream and hiss, and a big train loomed up from the west, slowed down, and came to a halt.

Passengers were looking out of the windows. They began pouring out. Right in front was Cousin Tom, who drew a fat salary in the claims department. He gripped Belcher by the shoulder and dragged him aside after one look at the captive.

"Did—you—do—that?" Cousin Tom demanded in one word.

"Certainly," said Belcher calmly. "That's Bullton. He wouldn't give me a raise. I was playing a joke on him. I—"

"Shut up!" hissed the claims man. "That's no more Bullton than you are, although he looks a little like him. Bullton's right over there in his private car, reading a paper. He—" Cousin Tom glanced back at the streams that were filing curiously from the train, and dashed the drops from his brow with a whisper:

"Go crazy!"

"Huh?" said Belcher.

"Wiggle! Wiggle, you idiot! Throw

your arms about in the air! Wiggle! I say, Wiggle!"

Belcher wiggled. Indeed, he found it amazingly easy to wiggle just then. He wiggled up, down, and sidewise. He wiggled in sweeping curves, short curves, wide angles, and very acute angles. His head wiggled to his own perfect satisfaction, for it was spinning gaily around, with the root of his neck for a pivot.

Cousin Tom was waving back the people. He took a terrible, compelling grip on Belcher as he whispered: "Now, laugh to beat blazes!"

Belcher laughed obediently. He laughed softly and nicely at first. He felt that he could do better, and laughed at the top of his lungs. He caught sight of the figure nailed to the switch, and he laughed frenziedly, furiously, and with more real enjoyment than he had ever known in his life before.

He had a notion that Cousin Tom was saying in silly fashion:

"It's all right, gentlemen. If one of you'll please give me a hand getting him to the baggage-car? It's all right, sir, thank you. He's just gone temporarily mad with the heat!"

MOVING-PLATFORMS FOR NEW YORK.

A Neglected Form of Transportation That May Get a Good Try-Out in the Metropolis.

THE serious consideration by the Public Service Commission, of New York, of the plan to install a moving-platform in a Subway under Broadway, between Fourteenth Street and Forty-Second Street, calls renewed attention to this system of transportation. Although recognized as the most efficient means of transporting passengers, it has been employed only at expositions, such as that at Chicago in 1893, and at Paris in 1900, and possibly for this reason has often been considered somewhat in the light of a freak.

Nevertheless, as shown by the report of Mr. Seaman, engineer for the commission, a moving-platform, of the type proposed for New York, has not only a capacity very much in excess of that of the combined rush-hour service of the local and express trains of the present Subway, but for distances of four miles gives more rapid service than the

present local service on the Subway, and even the local and express service combined.

The two principal objections, from a transportation standpoint, which have been raised against the moving-platform are: (1) That it requires a certain amount of agility to pass from the slow-speed platforms to the high-speed platform, and that this is not possessed by everybody, and (2) that the carrying capacity of the moving-platform is constant, so that the same service must be run at non-rush hours as at rush-hour periods.

There are also some objections from an engineering standpoint, and perhaps the principal one, based on the experience at Chicago and Paris, is noise. For these reasons there has been considerable reluctance to install the system in any place other than at a fair-ground, or similar locality, where the patrons need not ride unless they wish to do so.—*Electric Railway Journal*.

With the Veterans of the Erie.


BY PETER MULLIGAN.

PERHAPS no road in the country is so rich in capable and experienced veterans as is the Erie. Consequently, a day among the Erie veterans can be depended on to unfold to one a vista of early-day railroading hard to find anywhere else. It is impossible to railroad for forty or fifty years without having experiences that thrill, amuse, sadden, and mellow. But to get at the stories of those experiences is another matter.

If the average man asks an old railroad man about the things that have happened to him, the veteran probably will say that life has been pretty humdrum, and that he cannot recall anything worth relating. That is the difference between the man who can collect stories and the man who would go over the richest ground and never scent one.

Mr. Mulligan is one of the men who can go among the old-timers and get the stories of their experiences in the only natural and effective manner. Stories told under these conditions are the only stories worth telling. Read these and see if you don't agree with us.

Memories Revived in the Old Clubhouse, of the Days When Railroad- ing Was a Business That Needed the Courage of a Soldier and the Strength of an Athlete.

F you're riding on the Erie, and a gray-haired conductor comes along to take up your ticket, follow him to his lair and get him to talking. It will be worth the fare, no matter how far you are going. He will have a hundred stories to tell, and they will all be good ones.

There are forty of these veterans on the New York division alone, who come together every day in a clubroom near the terminal in Jersey City. Stick your head in the door, and this is about the first thing you will hear:

"It makes me laugh to think of the way you shoved freight around the yards, and I bossing you at the job."

"Yes, but you never laughed when I booted you off the caboose for stealing a ride."

"You never did that. You were a

'canaler' when I was breaking on the old Hackensack."

"When was this?" you ask.

"Along about '66 or '67."

They have all been in the service thirty, forty, fifty years, and, as they say themselves, they have seen "railroading that was railroading." Some of them are working pretty long hours right now, but they always have a joke on the end of the tongue. Only railroading could have mellowed men that way. What follow are but extracts from a number of pleasurable afternoons spent in this excellent company.

"Flat-Wheel's" Handicap.

"You can say what you like," began J. H. Gordon, who was a brakeman on the Erie in '71, at the age of sixteen, "but 'Flat-Wheel' Decker was a better

engineer than Jack Mooney. Of course, Mooney used to make the records, but how did he do it? Because he was one of those fellows who could always get his repairs done, while poor old 'Flat-Wheel' never got anything, and went out with a crippled engine half the time. I have braked behind him, and I don't ask for a better man.

"But it made him sore when Jack Mooney had to help him over the grades. You remember, they each took a freight out of Jersey City at the same time every night, 'Flat-Wheel' in the lead. Every other night we'd get stuck on account of lack of repairs, and Jack would boost us over the hills.

"Well, if we didn't like it, Jack did. He got to bragging about it until we were good and tired, and then we took the tail-lights out of the caboose so he couldn't see us. He'd have to be cautious, and that gave us time to get away again. But, sooner or later, on the run he'd generally hook on behind. One night, just as we were starting, Mooney called out of his cab:

" 'Well, I suppose I'll be shoving you half-way over the division to-night.'

" 'Will you, though?' called out 'Flat-Wheel.'

"When Jack Comedy, on the rear end, passed him, he called it out again.

" 'We'll see to that,' answered Comedy, twisting his face in a way that showed he had the right name.

"Everything went smooth for a while, 'Flat-Wheel' coaxing along his old swallow-tail, and we had a good lead at Sterling Junction. So we whooped her up past Greycourt, and were going over the top of Chester before we could see Mooney coming down Oxford, but when we struck Winterbanker's crossing the old engine began to die, and Jack was gaining on us.

Comedy Takes a Hand.

" 'He's got us!' I called out to Comedy.

" 'Not yit,' Comedy answered, starting for the back of the train. 'No red-headed Irishman will put his nose ag'in' this caboose to-night.'

"And with that he leaned over the tail-end, with an oil-can, and greased the track for about a mile. We weren't there to hear Mooney's profanity, but the next

day he and Comedy settled the matter after the way of all good Irishmen, and both of them carried black eyes for a couple of weeks."

"In those days," went on J. B. Honnell, who began braking in '78, but has had a passenger-train since '84, "the only way you could tell where the fellow ahead had hid himself was by keeping him in sight; and if he ever got away from you, you never could tell what curve he was lurking behind until you were pegging along close up to him again. And there was nothing slow about us either.

"There were some wild and reckless engineers, too, and every one regarded the next one as his enemy, and legitimate as a target. But the worst of the lot was Dick Davis. He would start out over the division as if he were the only one on it, and any one who was in his road had to get a move on and duck for cover.

"He didn't know anything about brakes, and wouldn't learn. His idea of stopping a train was to reverse and knock the daylight out of everybody on the train.

"You can imagine how comfortable it was to make a jump from one of those old one-truck jimmies they used to haul coal in and hope to land on the car ahead when you never knew when the whole train was going to take up about ninety feet of slack. Slippery nights, you never could tell when you were going to be shot from one end of the car to the other. I used to brake behind him, and I know what an unleashed demon he was.

"You've heard the story of the car that jumped the track and was never missed. Well, that was some of Davis's work. He reversed on the grade, broke one of the couplings, and when the rest of the train bumped in behind it knocked a jimmy right off the track into the ditch, and jammed so hard into the car ahead that the train ran away down Goshen grade, and they never missed the car until they struck the next hill.

"He liked to have a slow engineer ahead of him, and keep the caboose scared to death. One night it was like that, and there was some one hanging his head out of the caboose in front all the time. They had a cautious engineer, and when he came to the grade before you reach Augusta Bridge, he took it easy.

"Now, that was one of Davis's favorite places to make time, and it didn't make any difference to him because there was somebody on the rails. He threw her wide open, and leaned out to see what the other fellows would do. When they climbed out in a hurry and began to scamper over the top of the train, he laughed so he could hardly reverse her.

"It was all so quick, the other brakeman and I hardly had time to get to

"We used to skip along those days," broke in T. F. Clay, who has been with the Erie since '71. "One time there was a fog at Hackensack, and we were on the siding, east bound. One west-bound passenger had just come into the station when along came another and plugged her in the rear, and before any one had time to climb down a third scooted up behind and plugged the second. It took all day to clean up the mess."



"HE LEANED OVER THE TAIL-END, WITH AN OIL-CAN, AND GREASED THE TRACK FOR ABOUT A MILE."

work, and only had a couple of brakes set when the shock came. Luckily, we each had a hold on a brake at the time; but there wasn't any need for us to go farther, the train stopped so quick. Davis climbed down in a jiffy and walked back along the train. Catching sight of the two brakes I had set, he growled:

"Now, how could I make time with every brake set on the train?"

"But speaking about engineers," went on Honnell, "Frank Abbott was the wicked one, and he had a fireman, Jack Hayes, who was a match for him. Most of the time they were on bad terms and wouldn't speak for days, and then they would make up and were thicker than thieves.

"Once, when they were on speaking terms, Frank was showing Jack a scare-

card of the game of policy which he was always playing, but just at that moment Jack was raking down the fire and the draft pulled the card right into the fire-box. Jack knew it would break Frank's heart to lose that card, so he leaned forward quick, sticking his head right into the fire-box, and jerked it out before it was even singed.

"It was pretty hot inside yet, and Jack wouldn't have done it for money; but there was that feeling between them. They would do anything for each other, but nothing for anybody else.

Man Who Owned the Track.

"There was a track-walker along in the seventies whose name I've forgotten who bothered Frank more than anything on the run. He knew it too, and took delight in it. His game was to see how near he could let a train come without being hit.

"One day we ran across him three times. The first time he stayed on the track until we had slowed down almost to a stop, and, encouraged by that, the next time he kept on ahead until we had stopped completely.

"The third time, I remember well, was about half-way between Statesville and Haunted House. Frank gave him plenty of warning but did not slow up, and he kept going right down the middle of the track.

"'You'll move this time, if I have to do it for you,' Abbott said, throwing his throttle wide open and shutting his eyes. I saw what was up, and I kept my eyes wide open, expecting to see that track-walker lifted over into the next county. But he saw what was going on, too, and you ought to have seen him jump. He didn't do it any too quick, either. Then he had the nerve to get up and shake his fist at us."

"He wasn't like Paddy Clinton," said Clay. "Seventy-five years old, and the spriest track-walker you ever saw. Coming down from Manette to Manette Junction, one day, we could see him ahead, driving a spike, with his back toward us. He had plenty of warning, so we didn't slow up, expecting that he would move out of the way.

"But he didn't hear, and by the time

we could pull up we were right on top of him. We hit him on the slant, and down he went off the embankment into the bog, a fall of ten feet or more. We expected to find him dead, but he jumped up quick as he was hit and waved his hat: 'All right; go ahead!'"

Frank Abbott's Raspberries.

"Before I forget about it," began Honnell again, "I want to tell you about Frank Abbott and the raspberries. You all remember Jim Turner's eating-house, where we used to stop the immigrant-trains, and the good thing Turner made out of them.

"Abbott used to pass there about dinner-time with the freight, and Turner fed the crew at a fixed price. We ate whatever there was on the table, and the bill was always the same until, one day, there were some raspberries. They were good, so we ate all we wanted; and when it came to pay, those raspberries were extra.

"We were all a little sore about it; but Frank couldn't let up. For days he kept making remarks about the price of raspberries.

"Then he was put on an immigrant-train, and everything went along on schedule until they were getting up toward Turner's. Somehow, things began to go wrong then, and by the time they got to the eating-place it was just time to pull out, and no chance for the immigrants to go in.

"Turner was one of those fellows who was always outside seeing how things were coming on, and when he learned they were going to pull right out, he ran forward and said to Abbott: 'What's the matter with your engine? The other fellows always make it on time.'

"'I dunno,' answered Abbott, grinning, 'unless maybe she's got raspberries in her smoke-stack.'

"Now, when Jack Hayes got mad, he was just the other way. He'd stick his nose a mile in the air, and talked to nobody. He had a few hundred dollars in a saving's bank up the line, and one day it struck him he'd take it out. When he went around they were a little shy of cash, and told him he'd have to give them a few days' notice.

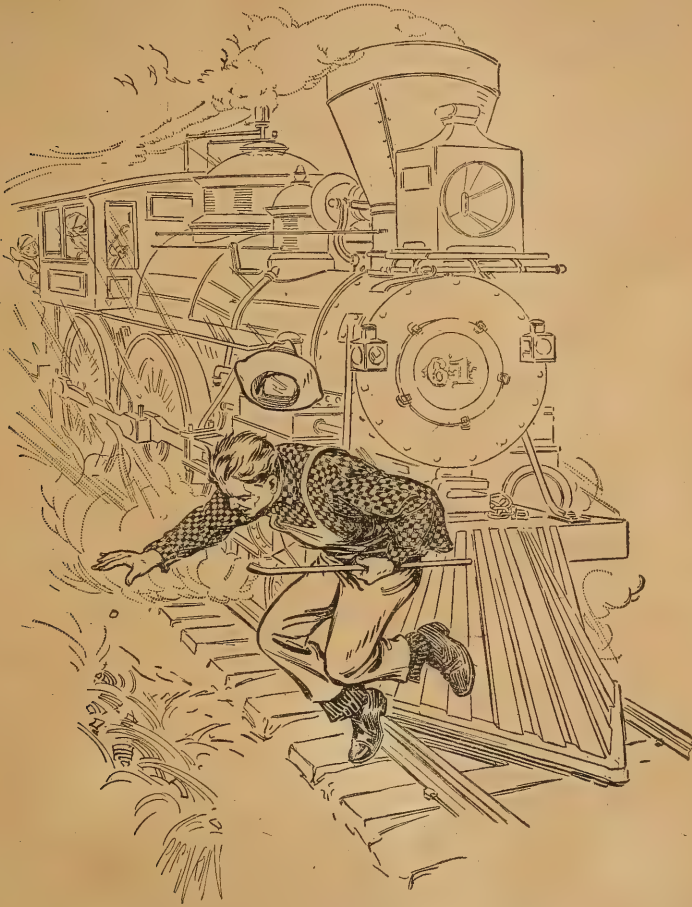
"'You won't give me my money—is that the way of it?' he asked.

"'No, that's not it,' the paying-teller tried to explain.

"'Well, that's the way it looks to me,' said Jack. 'But if you don't want to give me my money, you can keep it.'

"'I did, but I gave it to them. They didn't seem to have any, and I had plenty. So I just gave it to them.'"

The room where they were talking was once the barroom of a saloon which was encouraged many years ago by the Erie in the hope that a rival across the street



"YOU OUGHT TO HAVE SEEN HIM JUMP."

With that he walked out of the bank, and he never went back again. Two or three years afterward the bank broke, and some one of the boys were bemoaning their loss. One of them said to Jack:

A Gift to the Poor.

"'You lost some money in it too, didn't you, Jack?'

"'I did not.'

"'I thought you had some there.'

would sell out at a reasonable figure and allow the terminal to be widened.

Instead of driving him out of business, the competition on the corner boomed the neighborhood. The Erie gave in then, but not until the other fellow had thrived so that he was able to rebuild. Recently he has rehabilitated his place once more, but long ago all idea of dealing with him was given up.

The clubroom has been in use a long time now. The wide, old desks are bat-

tered, and the big easy chairs have reached a comfortable old age. Two soft couches are always filled by men who have not had enough sleep the night before, but even Gordon's powerful voice cannot awaken them.

be too horrible. When you have seen your best friend ground to pieces before your eyes, you don't recall the circumstance any oftener than you can possibly help.

"There isn't a man in this room who



"I DID TRAPEZE ACTS ALL THE WAY DOWN UNTIL WE HIT THE BOTTOM."

When these men were young they had many companions who were killed in the rough railroading they speak of so lightly, and as soon as the serious side to the matter is touched on their faces all become grave.

"I could tell plenty of stories of that kind," one of them said, "but they would

hasn't stood within ten feet of some poor devil as he went under the wheels."

Decker's Wonderful Coolness.

Some of these cases, however, stand out so vividly that they are repeated now and then. One of these relates to "Co "

Decker, a brakeman of the seventies, and it was told by William McPeck, a veteran of forty years, who saw him when he was smashed.

"His coolness was what struck me," said McPeck. "He had placed his fingers over the end of a draw-head to make a coupling, and when the two draw-heads came together, they struck all four of his fingers and mashed them into ribbons.

"He looked at his hand, saw what was the matter, and, without a moment's hesitation, bit his fingers off. It must have hurt him a good deal then and afterward, but he never let on, and took the train in and wouldn't stop for assistance."

Sudden death was no rare occurrence, and it took an extraordinary case to keep the memory of it green; but the fate of Dallas Washer has never been forgotten.

"If there was ever a man who had a presentiment, it was Dallas," said Honnell, who had been a brakeman with him. "He knew something was going to happen, and he talked about it all night, so that we realized his time had probably come when he failed to return from the front end of the train to the caboose.

Gloom Was Prophetic.

"It seemed as if things were bound to go wrong that night. First the pusher tried to climb into the caboose, then the train broke in two, and finally it ran away down the grade to Middletown. It wasn't Dallas's run, and he was at home in Brooklyn, half sick, when they sent word to him to take it. His wife begged him to stay and send back word that he was not fit, but he went anyhow.

"Before we started he told me he was not feeling right about the run that night, and every time something happened, he said: 'I knew there'd be trouble to-night, but there's worse than this coming. I can feel it in my bones. I don't know what it is, but I am afraid it is going to be pretty bad.'

"He kept talking about it so much that I hated to let him go ahead alone, and the last time I saw him I wondered if he might not be right. On a mixed train of coal dumps and freights it was common enough for a man to fall off trying to catch a side ladder, and that

must have been what happened to Dallas. In the jump he must have missed his hold and fallen down on the rail. He was a sight after twenty cars had passed over him."

McPeck himself holds the record for holding up cars in a wreck. Eighteen piled one on top of the other, but he is still here to tell the tale.

"It was on the Goshen grade," he began, "and at the moment I was climbing over an empty dump. When we struck, the whole train was shot straight over the embankment, with me in the coal-dump in the lead. I grabbed for the rod, and did trapeze acts all the way down until we hit the bottom, when I found myself underneath, without any way of getting out.

"For a moment I was glad enough, as I could hear the others come down on top, and I thought I counted a hundred. When they took them off there were only eighteen, but in the meanwhile I did a lot of figuring on how long it would take to pick two freight-trains off my back.

"I was eleven hours under that dump, and by and by I could hear Levi Cooper, the wrecking boss, giving orders. Pretty soon he said: 'Turn over that one. Maybe he's under there.' They gave a pry, up came the dump, and I scuttled out like a rabbit.

"'There he goes,' cried Cooper; 'worth a hundred dead men yet.'"

McPeck's Great Marathon.

This was not the only acrobatic performance McPeck ever figured in. One day he was standing on the last car, switching, and gave the signal to shake her up. The order was executed rather more suddenly than he expected, and the car was jerked right out from under his feet. He completed one back flip, and was in the middle of the next when he struck the ground. For a minute he did not know whether he was on the track or not; but, half-stunned, he could hear the cars passing, and knew that he had landed alongside.

But the occasion for which he is noted was when he dumped a train-load of hogs into Passaic draw. There used to be a pretty heavy grade down to the Passaic,

and the old drawbridge was lower than the bridge now in use.

Signals were scarce along the road, but as this was considered a dangerous place a disk had been erected there. It was so near the bridge, however, that it served no purpose when a heavy train was on the grade, and such a train McPeck was braking on.

"Just beyond the signal, and only a few feet short of the bridge," said McPeck, "there was a quince-tree that had grown low and wide on top. In quince season, signal or no signal, we always stopped there and took a few. That is why Harriot, the engineer, remembered it.

"By the time he saw the signal there was no stopping the train from jumping into the open draw, but he waited until he was abreast the quince-bush before he let go. The fireman, having nothing but a steep embankment to light on, landed on his feet, breaking both legs; but Harriot escaped without a scratch.

"I was forward brakeman, and, at the time, I was standing on the first car behind the engine, not knowing anything about the trouble until I saw Harriot jump. It was too late for me to jump then, so I started back over the tops of the cars. I made the second before the first struck the bridge, but as I jumped from the second to the third I could feel it rising under me as it toppled.

"The train was going faster than I was, and by the time I was at the end of the third car I had to jump quick not to go over too. There seemed to be no stopping the train, and it looked as if the whole thing would go in. I was the only one left on it except the hogs, and they were squealing all through the train, making more noise than the falling cars.

Running It Close.

"The fourth car I took on the wing, and the fifth was already well over the edge when I leaped and caught the brake of the sixth. Before I could get a start again to make up for the precious second I had lost regaining my balance, I was running up-hill, but the car, for some reason, hung for just a moment, and I made the seventh.

"By this time I was running right over the end of the draw, and it seemed

like one of those races in a nightmare where you run your legs off but can't get away from one spot.

"When the seventh went over the edge I was getting behind in the race, and was about six feet over the water, but the car seemed to be going straight ahead, as if there were track under it, although it was only riding out on another car that was piled up on end, and over she went just as I jumped to the eighth.

"I could see Harriot in his quince-bush, lying there as if he were in a hammock, and I wondered what kind of a place I was going to land in. I made the ninth before the eighth broke away. I had a start then, but I noticed they were still going over behind me. But when I reached the caboose I saw that the train had stopped. The eighth had been the last one over.

"When the cars smashed they broke open, scattering hogs over the whole surface of the Passaic. You can go down to some of those farms now and see the descendants of that train-load of hogs."

King Hates a Blizzard.

Another active old-timer who has a long record behind him is Dudley King. He was braking as early as 1869, and has been a conductor since 1874. He is now in charge of a train between Port Jervis and Jersey City. He is a hale and hearty old man, but he had no use for cold weather, as he was frost-bitten in the famous blizzard in March, 1888. The part he played was heroic, but he does not dwell on it with any satisfaction.

The blizzard came late, following a period of warm weather, and one of the few passengers he took out of New York in the midst of it was a young girl from up the country who had on only spring clothes. Half-way between two towns, away from all help, they were stalled, the heat gave out, and there was nothing to eat except a lunch that King had brought along.

This he divided among the passengers, and settled down to wait until they were dug out. That was nineteen hours later, and meanwhile it was growing colder and colder. King offered the girl his overcoat, but she refused and continued to refuse until she was blue with cold, and then

King asserted his authority and made her put it on. Even then she made him promise he would ask her for it if he had to go out.

"As soon as she laid down in that warm coat," King said, when asked for the story, "she fell fast asleep. I kept

Another passenger spoke up then, and said:

"Let me lend you what you need, Mr. Bryan. How far are you going?"

Mr. Bryan told him, and he produced a silver dollar. King took it, looked at Bryan, then at the other passenger, and back to Bryan.

"What's it worth?" he asked.

"One dollar," replied Mr. Bryan.

"But how do I know it won't change its value?" said King. "Do you guarantee it as a sixteen-to-one dollar?"

King must be a Republican, because he could not help rubbing it in.



'THE FOURTH
I TOOK ON THE
WING.'

moving around trying to keep warm, but the thermometer was getting down pretty low, and I thought I would freeze to death, but I would not have asked for that coat if my fingers had dropped off.

"When they dug us out, the next afternoon, they had to cut off my boots, and I was nearly dead from exposure. The girl slept through it all, but when she woke up she had a frightful cough from having got so cold before she would take the coat. Six months later she died of quick consumption."

That is a story King does not care much to tell, but he feels differently about the time he had W. J. Bryan for a passenger. It was between Presidential campaigns, and Mr. Bryan was lecturing the Chautauqua towns. He boarded the train at a way-station, and King, coming through the train, stopped to collect his ticket. Mr. Bryan fumbled through his pockets, looked in his grip, fumbled some more, and then said, smiling:

"You've got me this time. I have no ticket, and I don't seem to have any money."

"Do you know where you lost your money, Mr. Bryan?" he asked.

"I hid it," Mr. Bryan replied.

"Hid it?" questioned King.

"Yes—where it would be safe."

"Oh, that's so," said King, as if a great light had broken in on him. "I forgot. You were among Democrats, weren't you?"

A good many of the stories they tell bear on the "jimmies." They were a source of severe trial, and were dangerous besides.

"One nice cold November, bright and

early, I was trying to put the brake on one," Gordon said. "The brakes were on the side, and you pushed them down with your foot. Sometimes they went easy, and other times hard. This one was easy, and I jammed her a little, so she missed the catch and flew right up in my stomach.

Goble Gets Facetious.

"Just at that moment we were passing a pond that had new ice on it. When I struck it I was trying to do the cross-country dive, and I didn't know where I was or where I came from. Some one called to me from the top of the train: 'What you doing down there?'"

"'Taking a swim, of course,' I answered; 'fine weather for it, don't you think?'"

"A green brakeman fell off a jimmy one time and rolled down the embankment," Honnell related, "and Morris Goble, who was a good brakeman, if he was a wild Indian, called out to him:

"'Hurry and get up, or you'll miss the train.'

"And it's many the kid I've jumped off and whaled," continued Honnell, "thinking they had struck me, but it was only the brake of a jimmy flying up."

Among the veterans is a huge, loosely built man, John Tyrrell, now a conductor, but who, like the rest, went through an apprenticeship. They were telling a story of his prowess.

"He could lift a hogshead of molasses and carry it away," some one was saying. "Isn't that right, John?"

"No mon born of woman ever did that," he replied. "It weighs fifteen hundred pounds; but I have carried a barrel, and that weighs seven hundred and fifty pounds. That was when I was young and a fool."

Jimmie O'Brien is another Irishman, and one of the few nowadays whom you see smoking a clay pipe. He has not been so long in the service as the others, as he was inherited from the Hackensack when that was taken over by the Erie; but he is regarded as one of the veterans, just the same. He began as a brakeman, and it seemed to him he had to wait a long time before he was made a conductor, and even then he saw others put

in ahead of him on the passenger-runs. So he went to the president of the Hackensack and complained.

"And why don't ye give me a passenger?" he asked.

"Well," demurred the president, "you see, it's a matter of nationality. You're not an American."

Jim was deeply hurt at this. "Me not an American!" he said.

"You've not been naturalized, have you?"

"Is it to be naturalized to vote?"

"Yes."

"Well, thin, I'm eligible. I vote, all right. An' to show ye how good an American I am, every election day I vote twice, once on each end of the run."

He got his passenger.

There are two brothers, M. F. and George H. Conklin, who went to work on the Erie as boys in war-time. The former was a train-boy, and made his first money selling fruit to the Confederate prisoners who were being sent north to Mast Hope.

"They were a care-free lot," he says of them, "and hardly seemed like men who were going to prison. I don't know where they got their money from, it was supposed to be so scarce in the South, but they always had some to spend."

A Good Citizen.

Most of these years Conklin has been a baggageman on a train between Jersey City and Suffern, New York, and for a long time his brother George was engineer on the same train. He is the elder, and has been running trains now for forty-seven years.

"When I was a train-boy," said M. F., "I saw a man fall off a platform and have his leg cut off under the wheel, and just as he went down a bottle of whisky rolled out of his pocket. That was a lesson in temperance I have never forgotten, and I have never touched a drop."

Many of the old-timers are gone now, and none is more regretted than E. O. Hill, the fighting superintendent, who, as the others put it, "went through the war." He was a severe disciplinarian, and things had to be done. Clay tells a story of a brakeman who was riding a car that was being kicked into a coal

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"Now, then," said the conductor, "let her go."

It was not right, and the brakeman knew it; but he was angry by this time, and let it go. As a result, it ran to the end and dumped over into the street. He was called before Hill and asked to explain.

"He told me to let her go, and I did it," the brakeman explained. "I think it's a darned good man who does what he's told."

"You're right," said Hill, and sent for the conductor.

It is not set down what Hill said to the conductor, and what the conductor afterward said to the brakeman cannot be set down with decorum. Assuredly it did not in any way resemble the hospitable conversation said to have passed between the Governor of South Carolina and the Governor of North Carolina.

The brakeman grinned and said nothing. It was evident, however, that he



MR. BRYAN FUMBLING THROUGH HIS POCKETS.

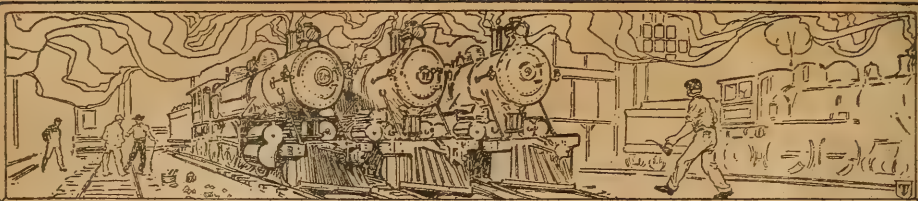
was enjoying peace of mind. It was quite enough for him to know that he would be allowed to brake at discretion while he ran on a train with that conductor.

A HAND-KYAR LULLABY.

AN' now me little Pat, Oi'm home
Frum down me section loine,
An' so Oi'll rock ye in the gloam,
While bright the moon does shine.
It's clickety-click, an' whirrity-clack,
This song of the hand-kyar on the track—
So go to slape to this funny chune
Oi'm singin' ye now this noight uv Junne,
Whoile rockin' ye forth an' back—
Click-clack!

Oi'm toired out frum work an' fret,
An' frum the heat uv day;
An' ye are toired, me little pet,
Frum all yer fun an' play.
Now listhen, Oi say, to the clickety-clack
Uv hand-kyar wheels all grase an' black—
An' close yer oies in happy drames,
Thin roide away on bright moon-bames
That's playin' forth an' back—
Click-clack!

Ed. E. Sheasgreen in The Iron Trail.



MODERN STATION RULES..

BY "GEORGE PRIMROSE."

The Following Rules and Regulations Should Be Strictly Adhered To by All Concerned.

THIS station is a public playground and loafing quarters for all who have been ejected from elsewhere.

The waiting-room should never be occupied by trainmen and loafers, if possible for them to crowd into the ticket-office.

The door to the ticket-office is only for looks, and is not intended to keep people from entering the office. If the agent should make a mistake and lock it, the person who feels his presence inside indispensable, should kick it down, if he cannot get in quick enough by waiting for same to be unlocked.

The ticket-office is the reception-room for engineers, conductors, brakemen, firemen, baggagemen, and, in fact, every one that is on the pay-roll. The oftener they come in, and with muddy shoes, the more welcome they are.

When the operator is copying a message, or train order, it is the duty of every one that can read to hover around him and read as fast as he writes, and, if possible, read in advance. If he is taking a private message, read aloud while he copies it, so that any one within a radius of a hundred yards of the depot can hear.

If there are not chairs enough in the office, after the agent and office force give up theirs, sit on the telegraph table, and put your feet on anything that comes handy. Lean over on the desk in the way of some one that is busy, and insist on telling all the old stale yarns we heard when we were boys.

Freight conductors should never check up their trains where there is plenty of room, but should take up the last available space in the ticket-office for their work, and should always be attended by at least two or more of their brakemen.

When entering the ticket-office, always fill your mouth with a piece of tobacco the size of a hen's egg. If the cuspidor is not in sight, spit at the coal-hod, but under no circumstances spit in it. This rule applies to the stove.

If you have any bundles to leave, or any errands to run, don't fail to call on the agent. He is a public servant and is always ready to wait on you.

Engineers, when running for a hill, past station, should always open cylinder-cocks, so as to blow station full of cinders and soil the windows as much as possible. This should be adhered to strictly, regardless of number of trips past station.

Any article around the station that is not nailed down should be carried off.

Any violation of the above rules should be promptly reported to the undersigned.

AN OLD-TIME AGENT.

BILL GETS DOUBLE-HEADED.

BY F. H. RICHARDSON.

It Might Not Have Happened If Sue
Hadn't Sent Him Her Photograph.



"HAT are you looking so glum about?" asked the engineer, when he saw Bill's long face and noted how Bill slammed the shovel and cracked each lump of coal as if he were trying to wipe some mortal enemy off the map.

"Mother of the everlasting smoke-stacks! Can't a feller have a grouch without you buttin' in? S'posin' I am mad! She's carryin' a white feather, ain't she? Even if you are workin' that durn'd injector overtime an' blowin' steam through th' whistle every chance you get! I don't see where you've got any shout comin'!"

"I'm not kicking. I just wondered what could have happened to ruffle the temper of so good-natured a chap as you," and the engineer winked his off eye solemnly at a mile-board as it flew past.

"Well," said the fireman considerably mollified at this tribute, "they's some people in this world that ought t' have their supply of air shut off real quick. They're too durn'd ornery t' do anything but run a dog-pound—an' I'd feel sorry for th' dogs if they was even on that job."

Bill put in a fire, swept off the deck, and after squirting some black oil on the palms of his new gloves and rubbing it in, continued:

"Y' see, I went up t' th' roundhouse, yesterday, t' clean out my seat-box an' do a few other stunts I had laid out for quite a spell. They's a lot of smart Alec tallow-pots, mostly on th' extra list, loafin' round there, an' seein' as they ain't got no particular business of their

own, they're mos' generally ready t' tend to everybody else's.

"Well, I was working away 'tendin' strictly to my own business when that little sawed-off runt, Fatty Burns, waddles over an' climbs up in th' cab an' starts chinnin' about what hard luck he's had, an' won't I lend him a couple of plunks till pay-day. It takes me just two-fifths of a second t' put th' skids under him and get it worked through that boiler-plate skull of his that I'm no banker, an' he goes off grumblin' just as Jim Watson oozed himself through th' gangway an' planked his loose-connected frame up on your seat-box.

"You know th' gangle-shanked coal-heaver! He got his first job firin' about three months ago, an' now he puts in all his spare time tellin' th' rest of us things we learned an' forgot before he knew an engine from a stack of hay.

"It seems he had just got wise t' usin' oxalic acid for scourin' brass, an' of course he had t' explain th' whole business t' me. Why, durn his lantern-jawed mug, I knew all that while he was still milkin' th' goats down on grandpa's farm, but, of course, I let him discourse until he run down.

"That's th' only way with his kind. Jus' let 'em run till they run down, an' then make a getaway while they're rewindin'.

"Well, purty soon he told everything he knew and then told a few yards of what he didn't know. Then somebody called him, an' he tore himself away before all th' varnish was wore off th' cab by th' continuous flow of words.

"An' then th' trouble train come in. Th' roundhouse foreman has a big bull-

dog, though what in th' name of everlastin' valve-stems he wants of th' ornery-lookin' freak, is a sight more than I know. It camps in th' roundhouse Sundays, week-days, an' legal holidays.

"He won't be there much longer, for I'm goin' t' bounce a ten-pound lump of cast iron on his measly skull th' first good chance I get."

"What did the dog do to you, Bill?"

"Do to me!" said the fireman, with a snort. "You'd better ask what he didn't do? It won't take so long t' tell."

"I'd got th' seat-box cleaned out an' was standin' in th' gangway admirin' a photograph of Sue she give me th' last time I was over, an' it slipped out of my hand. Th' floor of that engine hotel ain't none too clean, an' not wantin' t' get th' picture dirty, I made a quick dive for it an' lost my equaliber-broom, or whatever th' high-brows call it!"

"Equilibrium, you mean, Bill," commented the engineer.

"Yas, I reckon that's it. Anyway I got from th' engine t' th' floor some more sudden than graceful. Th' picture lit on a nice greasy piece of waste an' my hoof lit on th' picture, an' then th' towerman jerked up th' bad-luck semaphore with a bang.

"Y' see, that fool roundhouse foreman has got a lot of water-pipes runnin' around, an' there's a little pipe with a valve stickin' out from a post beside every stall, for th' wipers t' connect a hose t' wash th' mud off th' drivers an' trucks.

"They're connected with th' city water-mains, an' judgin' by results, they must carry about four hundred an' seventy-eight pounds pressure.

"Well, when I lit on th' floor, I hit one of th' durn'd things an' broke it off. Th' stream hit me square on th' west ear.

"Say, I'll bet I did six pinwheels before I touched th' floor. When I did light it was on top of th' roundhouse foreman who happened t' be pettin' his bulldog."

"I reckon th' mutt thought I was an Italian blackhand tryin' t' work his boss into a trunk mystery.

"I lit on all fours, leakin' water all over, an' that infernal beast, probably thinkin' I needed help, coupled onto me behind. Say, was you ever double-headed

by a bulldog?" and Bill paused anxiously for a reply.

"No, I can't say I ever was," replied the engineer.

"Well, all I can say is don't go huntin' for th' experience. Th' dog coupled on an' give th' signal t' start, an' you bet I opened 'er up real quick. It's a mighty searchin' feelin' t' have a full-sized dog industriously tryin' t' bite a pound of meat off your frame!"

"Did it hurt?" asked the manipulator of levers.

His minion looked at him solemnly for a moment, put in a fire, and pulled the bell-rope for a crossing before replying.

"Did it hurt? Well, between the shower-bath an' th' jaws of that dog, I guess I was plum loco. I started runnin' in th' direction I happened t' be headed, with th' pup trailin' along behind an' reachin' fer a bigger bite. Th' foreman jumped up an' took after us, an' you bet they was some commotion.

"I heard one feller that saw th' proceedin's yell, 'Go it, Bill, you're gainin' on him,' which were a lie. How can a feller gain on a dog that is fastened to him with a grip like a Janney coupler.

"Right ahead of me was a window, an' I made a dive for it, not stoppin' t' consider th' fact that there was a sash an' about twenty-nine lights of glass in it.

"I hit th' thing square in th' middle, an' it sounded like a glass factory was bein' blowed up with gunpowder. I'll take my solemn oath it rained glass an' splinters of wood aroun' there for ten minutes. Th' air was so full of th' stuff that some of it had t' wait fer what was below t' get out of th' way before it could fall.

"Just as we went through th' window, th' roundhouse foreman caught up with th' procession an' grabbed th' mutt by th' tail. His grip didn't hold, but I'll bet a two-ton coal-ticket ag'in' a square meal that th' south end of that pup's backbone will be lame for quite a spell.

"I lit outside th' window with th' sash aroun' my neck an' th' pup atween my legs like I was ridin' him.

"They was a pile of soot jus' outside th' window—oh, they wasn't a thing lackin' t' make th' occasion a howlin' success!"

"I don't know where th' cussed stuff come from, but it was th' real article like you get out of old stovepipes, an' it was about three feet deep.

"We landed square in th' middle of it. You know how that kind of stuff flies? Well, they was a feller up-town told me last night, he thought a volcano busted out when he saw it. It was no volcano, but just me an' that pup tryin' to scrub that pile of soot off th' map.

"It was no bloomin' failure either. When we got through, that stuff was distributed over half a mile of territory.

"Well, by 'n' by, some wipers an' th' foreman choked th' mutt loose.

"Them galvanized apes o' wipers just looked at me an' laughed like th' whole thing was funny. Some people have

crazy ideas of what's amusing. I'll bet I used half of Lake Michigan scrubbin' that soot off me."

"You weren't dirty, were you Bill?" asked the engineer innocently.

"Oh, no! Of course I wasn't. I was clean as a hog that's been makin' hisself comfortable in a puddle of black mud for a couple of hours. All I needed was a little rice-powder on th' end of my nose to be presented t' th' King of England.

"An' what d' you think that measley foreman had th' nerve t' do? Jumped all over me because th' pup got scratched up with th' glass goin' through th' window! I reckon he thought I ought t' 'a' stopped an' wrapped him in cotton batten' before making th' getaway!"

Firing a Work of Brain.

BY E. A. SPEARS.

Why It Is Necessary for the Tallow-Pot of To-Day To Be Much More
Than a Mere Coal-Pusher in Order To
Hold His Job.



HE was a sandy-haired, muscular young fireman. His jaw was square and his forehead high. He sat on a bench in the roundhouse of the New York Central Lines, and talked about his calling.

"It wasn't many years ago," he said, "that a fireman wasn't supposed to have much more than bulging biceps and layers of muscles across his back. When you asked for a job, they would fire two questions at you: 'Have you got the beef?' and 'Have you got the nerve?'"

"That's all they wanted to know, and they considered that enough to make a good fireman.

"But times have changed. Five years ago I began as a fireman on the Delaware, Lackawanna and Western. By that time they were holding examinations. All the boys were expecting promotions, and

they were studying up on combustion, steam, brakes, and locomotive practise.

"There were engineers who had been on the road for years, and they knew mighty little about the theory of the locomotive. They just knew that certain things happened when you did certain other things, but they didn't know the why of it. They were just men of the old times.

"And I tell you, us fellows who were studying the theory of the engine would get these old engineers wild asking them questions. An engineer would most always give some sort of an answer. He'd make a stab at it, whether it was right or wrong, for he didn't want to say he didn't know.

"When he was wrong, the fireman would go ahead and tell him where he was twisted, and explain his own engine to him. This often made the engineer

so hot that he would say. it wasn't so; he guessed he knew, and no fireman could tell him anything about an engine after he had run one for twenty years. It was heaps of fun.

"The authorities used to look for men of courage and muscle to make firemen, but now they want the men who use their heads. It makes all the difference in the profits of the company whether a man is just muscle, or both muscle and brain.

"Not only do we get our examinations, but the bosses have a way of coming around and casually asking you a question about combustion, about different grades of coal and their effects in the engine, or some other question that don't seem to make much difference. Well, if the fireman can answer the questions, or shows an interest in them, he is more valuable.

"Let me tell you about a trip I had when several students made a test of the engine and our work. These students kept tabs on the steam-pressure, the amount of water in the boiler, the notch at which the engineer had his throttle, and every time I threw in coal, and the amount.

"In short, they kept track of the whole business. At the end of the run they had a graphic representation of the pressure of steam at every minute of the trip. They knew when everything was done, and where it was done.

"Knowing the grades and the stops, they could tell whether or not a lot of coal and steam was desirable at such a place, and whether we had too much or too little.

"I was careful not to shovel in too much coal, and to keep the fire just right, but I learned from those students that I had used in the eighty-mile run just eight hundred pounds more coal than I needed.

"Some people think that an engine is an engine, and let it go at that. They think that they are all alike if they are of the same size. But you may take two

engines built on exactly the same designs, built by the same locomotive works, so that they do not vary mechanically a hair's breadth, and when you go to use them you will find them as different in nature as one woman from another.

"You build one kind of a fire in one engine, and she'll pop; and you build the same kind of a fire in another of similar model, and she'll be so dead you can't pull a pay-car.

"I have built a dozen different kinds of fires in an engine before I found the proper one for that particular locomotive.

"One engine will need a high fire in front and a low fire behind, while another engine will require exactly the opposite, and still another will best go with a level fire.

"They can now figure out just how much coal a fireman should use between two given points. They know how many miles a certain quality and quantity of coal will carry.

"To grease your engine they give you so much oil, knowing that it will take you so far. But they can't do that with coal. They give you more than enough, if anything.

"Supposing they would say to you, 'Well, you have a dry rail to-day, and the wind isn't against you. So many tons will carry you.' Then suppose you travel a certain distance, and it begins to rain, and the wheels slip. Every revolution of the drivers means the exhaust of so much steam.

"If you have sixteen or twenty exhausts of steam, which don't carry you ahead, you have got to use more coal to produce more steam to carry you over the rail the distance you should have gone with the sixteen or twenty exhaustions.

"Then, supposing a high wind should swing around against you. Such a wind sometimes makes as much as a third difference in the speed. You must have the coal to overcome it, and that's why it isn't measured out like the oil."



PRESIDENT OF THE LINE.

BY JOHN WELLSLEY SANDERS.

The Master Mechanic Makes the Old Man Believe in His Story.

SYNOPSIS OF PREVIOUS CHAPTERS.

VINCENT WILSON, young and ambitious, having risen from the apprentice shop to mechanical superintendent of the great Mainland System, has discovered what he believes to be a leak in the affairs of the company, and criticizes to President Harvey Jones the action of the board of directors on voting the sum of twenty thousand dollars for certain purchases. Wilson visits a former employee of the Mainland System, "Doc" Ferguson, who imparts to him the information that Kaintuck, a former friend of both, had developed leprosy and been sent to the leper settlement at Molokai. "Kaintuck" was betrothed to a beautiful girl, Meriel Planquette, whose address Wilson is very desirous of obtaining from "Doc." "Doc" refuses to give this information unless Wilson meets his price, which is five thousand dollars.

CHAPTER III.

In the Big Man's Confidence.

"DOC" FERGUSON did not lose his head. He remained perfectly cool, and the more he remained cool, the more Harvey Wilson became wrought up.

He slowly calmed himself. He had sufficient self-possession not to let temper get the best of him, especially when debating with an older man.

"You may call it extortion," said the doctor, "but you fellows revel in money, and when you want information from a poor man, you are unwilling to pay for it. I dare say that if you knew the exact whereabouts of Meriel Planquette, it would be worth that sum to you. Come, now?"

"I cannot say—now," replied Wilson, "it probably would."

"You had better take time to think it over. A day or so won't make much difference," went on old Ferguson, "and the longer you think it over the sooner you will agree with me."

"Granted," he continued, "that Meriel

is here, in this city—or, let us say, in New York. You must have her. There has been a defalcation or something. Money is missing. A trusted employee is involved in suspicion. A girl, once poor, who saw the man she loved and whom she knew loved her to distraction go to a leper settlement. Suddenly this girl becomes rich and lives in affluence. Her name is connected with that of the employee under suspicion. What could be more natural?"

To his astonished senses, Ferguson had unveiled to Wilson the very plot that the young railroad man was trying to unravel.

How did he come to know this? Was he a necromancer—a mind reader who had let him into the secret? Or, was it only guesswork?

Vincent Wilson was so completely dumfounded that he could not find a ready answer.

Finally, when he had collected his senses, he figured out, mentally, that it would be best to be as diplomatic as possible. He quickly turned the matter aside.

"Pardon me, doctor," he said, "if I have shown that I have a yellow streak in me. I was overcome."

Began in the May Railroad Man's Magazine. Single copies, 10 cents.

"Go and think it over," said the doctor. "You will always find me here whenever you want to talk it over."

He smiled a cynical, knowing smile. He seemed to want to assure Vincent Wilson that he was in the right, and that if Harvey knew on which side his bread was buttered he would do his thinking pretty soon.

Vincent left the doctor's office and strolled back to the company's office.

It seemed ages until half-past three o'clock, when he was to keep his appointment with Harvey Jones.

So eager was he to be on time that he entered the outer office just as the big clock was striking the quarter hour.

Fifteen minutes to wait! It seemed an eternity.

"Is President Jones in?" he asked a clerk.

"Yes. Do you wish to see him?"

Wilson glanced at the clock. Only a few minutes had elapsed since it struck. He was ahead of time, but maybe it would be good policy to be announced right away.

President Jones was a prompt man—prompt in all things, and it might so happen that he would appreciate Wilson being able to keep an appointment ahead of time.

"Tell him Mr. Vincent Wilson," he said to the clerk.

The clerk knocked on the private door of the great man's private office, and entered.

The president was the first to speak.

"That was a tough accusation you made to me to-day," he said. "And you are here ahead of time to report it."

"I came early because the thing is on my mind," answered the younger man. "I don't know if I am right—I may be mistaken—but I have been putting two and two together for some time now and in every case they make four."

"Get down to business, Wilson. I'm a busy man."

"I told you that there is a leak somewhere in this office. Money has been appropriated for improvements that have never been made."

"Is that a direct charge?"

"Yes."

"Do you know the guilty party?"

"I do not. But I'll find him in time."

"On what specific information or evidence do you base your belief?"

"On what has come to my notice. We have been spending more than we should for certain things. I told you this morning that I had been getting figures."

The directness of the young man's words made a deep impression on President Jones.

"Vincent," he said at length. "If I didn't know you, I should say that you were either a fool or a mischief-maker. But I can pretty nearly tell when a man is speaking sincerely."

"It's not for me to put my nose in where it would get pinched," said Wilson.

"Dishonest men creep into big corporations, just as they creep into other concerns," the president went on. "Some of them operate pretty cleverly—so cleverly, indeed, that it is often impossible to find them out, and so they work on unmolested for years."

"It is hard to think that any man in whom you have placed your trust should rob you under your very eyes."

"That's what is going on here," replied the younger man.

"Are you capable of finding out?" asked Jones.

"I think I am. I only need time, and not a very long time at that."

"Do you need the aid of a detective?"

"Not now. What I need now is money."

"How much?" asked the president without hesitation.

"I cannot say yet. There is a woman who must be found."

"Always the woman," mused the older man.

"Yes," replied the younger; "if I can locate her I will locate my man."

"Do you know anything about her?"

"I understand that her name is Meriel Planquette. She is living in great style either in this city or in New York. My theory is this: She is blackmailing this man—this particular man who is an officer in your company. She used to be a poor girl in this town. She is very pretty, and was once in love with a fellow they called Kaintuck."

"He had to be sent to the leper settlement at Molokai, in Honolulu. She was supposed to follow him there, but when

looking around for the necessary money to get transportation, she fell in with this official."

"And what became of Kain—what did you call him?"

"Kaintuck," said Vincent Wilson. "Why, she merely shook him—as they say. Money turned her head."

President Jones was getting interested. The young man's story certainly had the earmarks of plausibility. But it was the unflinchingly plain and blunt manner in which he told it that made his superior officer place absolute confidence in him.

Harvey Jones paced up and down his office. He looked out of the window, he returned to his desk, looked at Wilson, and walked back again to the window, where he beat on the pane with his fingers.

Could it be possible that one of the men in his great organization—an organization of which he was so proud, and which he had taken so much trouble to build up—should be robbing him?

It was a blow even to think of it. Great Scott! Here in his own company! He was almost ready to rush into the outer office and ask the man to step forth, so sudden was the touch of anger that rushed into his brain.

Harvey Jones seldom lost control of himself. He seldom said or did things for which he was sorry. The diplomatist is born. All the schooling in the world will not make him—but schooling will perfect him. Jones was not going to spoil any part of Wilson's chance to trap the culprit—and he was convinced now that there was something wrong somewhere.

He turned to Wilson, who had sat watching him closely.

"Wilson," he said, "I want to ask you one question."

"I'll answer it if I can, Mr. Jones."

"Tell me, have you any idea who this man is? Have you any suspicion?"

"Not the slightest."

"But you are sure of this girl—what did you say her name is?"

"Meriel Planquette."

President Jones made a note of the name on a pad on his desk.

"Can you locate her?"

"I think I can. There is an old man in the neighborhood—an old doctor—

who knows her whereabouts, I am sure, but he will not divulge unless he is well paid."

"Have you seen him?"

Vincent Wilson related his visit to "Doc" Ferguson in every detail.

"I listened to his yarn," he said, in closing the incident, "and then asked his price to tell me Meriel Planquette's whereabouts. He demanded five thousand dollars."

"Preposterous!" shouted the president.

"I told him so," answered Wilson, "and I meant it."

"Do you think that he is in league with her?"

"No! My impression is this: he evidently saw that I was badly in need of the information, and he saw a chance to make money. I think that if he is offered five hundred dollars cash he will not hesitate to tell all he knows about her."

"Try him," said President Jones. "We must do what we can to get to the bottom of this."

CHAPTER IV.

The Market Price.

TURNING again to his desk, the president of the Mainland System touched a button. In an instant a tall, slender youth entered.

"Tell Mr. Lowery I want to see him."

The youth nodded and left the room, and it was only a moment before Mr. Lowery, one of the assistant cashiers, entered.

"Bring me five hundred dollars in hundred-dollar bills," said President Jones, "and have it charged to my account."

Lowery departed to carry out the order.

"You have never told me, Harvey, where you got your information that led to this—this charge of yours. I can only call it a charge, just now, for it is aimed against some one in the company."

"It dawned upon me when I was checking up one of my bills for equipment for our Norfolk division."

"In what way? How?"

"It simply struck me that the price charged for certain items was a great deal more than the regular market price. That

was one instance. Again, I noticed one account that called for a great deal more of a particular item than we needed.

"My suspicions were aroused. I looked deeper into the matter. I am convinced that I am not mistaken. If you want further details you may have them at any time—now, if you say so."

"Not now," replied the president. "My time is occupied for the rest of the afternoon. Later, we will talk it over at length."

He handed Vincent Wilson the money. The young man tucked it away in his wallet, then started to go.

President Jones took his hand and pressed it warmly.

"You have my best wishes, my boy. If you prove your case, I am your best friend—and there's a future here for you that will mean something."

CHAPTER V.

The Deal in Denver.

IT was evening in a richly furnished apartment on one of those highways in New York City where those who have money live in all the splendor of metropolitan luxury.

Meriel Planquette sat before her mirror and pinned a red rose in her dark hair. It reposed against the black coiffure tenderly and becomingly. Her face was illumined with a smile of satisfaction. She reveled in the undisputed evidence of her own beauty.

"He told me I looked like Cleopatra," she said to herself. "Cleopatra was beautiful—so beautiful—so ingeniously beautiful. He told me, also, that I looked like Juno. But I don't like Juno's face—so fluffy! And her hair—not even respectable. That made me think that he wanted to flatter me. If he had only been content with Cleopatra."

Meriel floated into a reverie wherein a number of men danced gayly before her, but wherein one man—John Toylmore—never entered. To her, John Toylmore had been every inch a bore—but he had money when she married him.

Her married life had been short. John Toylmore was a well-to-do railroad man when she met him—the New York rep-

resentative of the Mainland System. She considered it a good match, for he had a position that brought a salary that gave her social position.

It was Toylmore who had won her from Kaintuck—who had proposed when he had fully blinded her eyes to her former sweetheart in the leper settlement, and had married her, giving her luxury and position.

But their married life was destined to be for less than a year. Toylmore was killed while touring in his own automobile.

His beautiful widow mourned but very little. Soon after he was laid away, she began to look at life through pleasant glasses.

She was not going to spoil her pretty face with weeping! She was not going to become a victim to moods of mourning! No, not she.

When Toylmore took her away from Kaintuck, hadn't he destroyed forever all her sense of sentiment? Hadn't he shown her that money was more than love? What was there to be gained by living in poverty and gloom when one could live in riches and sunshine?

These were the questions she asked herself, and to each of which she answered, "What!"

Pretty and rich and a widow, men would soon be paying her attention—and they did.

They told her she was wonderful—beautiful. They extolled her charms and her manner.

But she felt that their words were false. What they wanted was her money—not herself.

All save one. Jimmie Winters had made love in the maddened pathos of real earnestness. But he is so young, thought Mrs. Toylmore. He can hardly be a man, and yet he boasted of his twenty-two summers as one who has defeated death in old age boasts of longevity. His was a persistent wooing, too. Impassioned, fiery, almost desperate, and full of meaning. Had it been the wooing of any other man it would have wearied her, but there was an inexpressible charm to Jimmie Winters.

It was so unlike Bertrand Clivers—the short, stout, blustering broker, to whom sentiment, too, was as the Dead Sea

fruit, whose prosaic nature never rose beyond a cold, "Good evening, Meriel," when he arrived, and a colder, "Good night, Meriel," when he went away.

And to Clivers, Meriel was no more than the victim's clothes to a brigand. It was her gold that he wanted. It was the fortune that Toymore had left—the same fortune that he had once tried to deftly lure from the dead railroad man by a "little deal in Denver."

Clivers went home one night after having asked the pretty widow, for the eighth time, if she would be his wife. With her customary coyness, she had answered "No."

As he tumbled into bed that night, he felt that he could almost commit murder for her money. The widow's fortune would come in so handy. With it, he could buy in with Brockley, the broker, in the oil deal—and Wall Street would call him a Napoleon.

Meriel brushed into the spacious drawing-room and threw herself into a big blue armchair in front of the tempting fire. She loved that room with its Indian tapestries, its massive furniture, and its deep red walls.

It was Jimmie's night to call.

She settled in the chair and opened her book. She had hardly read ten lines when the door-bell announced that Jimmie had arrived. The stiff butler's, "Mr. Winters, ma'am," brought Meriel to her feet, and she greeted the young man with all the fulsomeness of her heart. Jimmie advanced, enraptured, and took the hand held out to him.

"Shall I call you Cleopatra to-night," he said, "or shall I christen you the Medea?"

"No, Jimmie, I like Cleopatra best. She was a reality, and the Medea was only one of those sun-myths. Cleopatra—she had all the men at her feet, and my friends do say—that I am a Cleopatra."

"I like you to-night," Jimmie continued, still smiling, "you wear colors well for a woman with a dark complexion."

The light and airy chatter that always prefaces the serious phases of conversation took its course, and Jimmie soon found himself beside the big armchair.

Gently he placed his hand on the soft

hair of the woman, just as if he had expected resistance—but she offered none. He knew she would not, and his arm stole around her shoulders and slipped down to her waist. He sat on the arm of her chair and whispered, "You know I love you."

She brushed her cheek against his, and kissed him softly. To her it was like a mother kissing her son. Though only three years his senior, she sometimes felt for him a maternal love, or else she imagined she did. Then, at other times she believed he had trained himself to be a man for her sake, and that he was a man.

To-night, he seemed to be more of a man than ever.

"You have a future, that you must not forget," he was saying. "Meriel, you have a life that you must not throw away—you must think of those days that are to come, when your raven hair will have turned to gray. You will long then for a strong arm and a kind heart, and if those have nurtured you through your young life, they will make your old age happy."

"But I will have my money," persisted Meriel.

"Money!" replied Jimmie, as he marveled how a woman could think of anything so mercenary in the midst of his passionate appeal. "Why, money is spasmodic. Some man will marry you for your money, and when it goes he will desert you. But as far as I am concerned, Meriel, you can give it away. Cast it to the winds, and let me be your slave."

"No, Jimmie, I would never do that."

"Then do not bring it into my affairs. It is yours. Keep it. But tell me? Is my love anything to you?"

Hesitatingly, Meriel answered "Yes."

"Meriel, I love you for yourself alone, I will always love you and be true to you. My life will be devoted to making you happy. Will you marry me and end this agony of suspense? Will you, dear?"

He was kneeling before her, so that his arms were around her and her face close to his. He looked her squarely in the eyes. Color came to her cheeks, her lips quivered, as she answered:

"Yes."

In the moment of intensity that followed neither heard the bell ring, and

neither heard the stiff butler as he opened the door, nor saw the robust form of Bertrand Clivers as he entered, unannounced.

Meriel was crying softly with her head on her lover's shoulder—crying because, perhaps, she could see a new and a good life.

Jimmie was swearing faithfulness by all the gods in the gamut of mythology, while covering his sweetheart's face with caresses.

Both started in a paroxysm of terror at the sound of the broker's voice. They arose and faced him, and Jimmie's clenched fist gave emphasis to his rage, while Meriel was too surprised to speak.

Clivers was keen enough to see that deceit and craftiness should be his only weapons. It was to be war between youth and age, sentiment and commercialism, and he was willing to wager that he would win.

"I have disturbed you, Meriel, I fear. Your nephew, I presume."

He had heard of Jimmie Winters, but he wanted to aim a shaft that would pierce when it struck, and few women are capable of withstanding the blow of being called the aunt of a lover, and especially when found in his arms.

"You entered unannounced," said Meriel.

"You are not a gentleman," added Jimmie, hot with the fire of youthful bravado, which is always intensified at such a moment. He was willing to assault the broker on the spot, but Meriel, with a gentle, "be careful, Jimmie," prevented the catastrophe.

Clivers merely smiled. He was too much of a man of the world to be upset by a mere stripling of a boy, even if the woman whose money he wished to marry was in love with that boy, and the chances appeared to be in his favor.

Clivers grasped the whole affair at once. He needed no one to tell him that Jimmie had proposed to Meriel, and that Meriel had accepted him. Nor did he need a verescope to picture the future of the woman, and Jimmie's untiring efforts to make her a happy wife.

He must frustrate Jimmie's plans at once.

"It was necessary for me to call tonight, Meriel," he said with suavity.

"There is a little deal on. I thought you would like to hear of it. The Central Western has another boom. Stocks up! Everything gay. Nothing to worry me. Life's a dream—"

He brushed by the dumfounded Jimmie and sat in the blue armchair.

"Made a million in Central to-day. A cool million! I must go away for a few days, and just came to say good-by. But introduce your friend. I like to know young men. Pleased, I'm sure, Mr. Winters. May give you a tip in the Street some day; and if I do, take it—take it."

Jimmie nodded a cold response at the introduction. All the wealth of Wall Street could not lure him from Meriel, and to have his best purpose thwarted just at its most critical moment was something that he could not endure.

"Mr. Clivers," he said curtly, "your presence is undesirable. I may say that you have interrupted a most private conversation in a manner that reflects on your position as a gentleman. I beg you to excuse yourself."

"I must see Mrs.—er—er—Toylmore. I have something important to tell her," said Clivers.

"Then tell her. And make it as brief as possible."

"But it is private."

"It cannot be too private for me to hear. Mrs. Toylmore has agreed to marry me."

Clivers never flinched. It was just what he had expected.

"Dear me, dear me," he said with a sardonic smile. "Here's a chance for congratulations. Meriel, I'm sure you know how much I wish you happiness."

The situation became unpleasant. Meriel and Jimmie wanted to be alone, but Clivers did not; so he stayed under one pretense or another until Jimmie felt that he could have devoured him as a cat devours a mouse—and with just as little mercy.

The boy was in the throes of anger, but the coolness of the elder man kept him from giving vent to it. It had always been Jimmie's custom never to let any one get the better of him in politeness.

When the time came to go he did not linger with Meriel, but walked out into

the street with the broker; and when the first car came along, though it carried him in the wrong direction, he boarded it after a sharp "Good night!"

The next morning he was at the home of Meriel early enough to partake of her late breakfast. In his vociferous endeavors to tell her how true he meant to be, how trustworthy and faithful, he let slip sufficient in the presence of the butler to give that flunky an excuse to tell the rest of the servants.

When breakfast was over he sat with his bride-to-be in a corner of her drawing-room, and there he swore again and again the eternal, undying, unflinching love of an honest man.

Meriel believed him—she had no reason to doubt his sincerity. She promised to be his and to marry him just as soon as the dressmakers could fit her out.

Jimmie, in a whirlpool of delight, said a fond "*Au revoir!*" and flitted away to Boston to break the news to his mother.

The night Jimmie left, Clivers called to see Mrs. Toylmore. What could the man want, she thought; what was his motive for being so persistent? She had to see him, she supposed. She could not turn away so old a friend.

"You look well to-night," she remarked as she beheld him, for he had gone to the extreme of dress for this special occasion. He knew he looked well, and as he drew up before the fire he remarked: "Yes, everything is lovely. The little deal in Denver, you know."

"Ah, that yet!" said Meriel. "How has it panned out?"

"Just two millions, cool and clean. Bought a home on the avenue, and cornered wheat to-day. Will make the oil-boys look like drowned rats to-morrow. They will call me Napoleon yet."

Meriel smiled faintly. A tiny demon

within her whispered that it might have been all hers; and then a big demon, who was sitting near her, told her the same thing—but it was all false, and so fatal.

Could the woman have seen the true "deal in Denver," she would have beheld only a heap of papers, signed and sealed and written in high-sounding phrases that are undiscernible but awe-inspiring to the victim. The world is full of such papers, and the victims are born every minute.

The door-bell rang. The noise it made was louder and sharper than usual. It pierced the woman's heart and made her start.

"A telegram, madam," said the butler. A telegram from Jimmie. It read:

Mother is ill. Must remain here at least three days longer than I intended. She gives her consent. I know you're happy.

When Jimmie had started for home his heart outran the fleeting train in its eager desire to greet its new-found mate. His hopes were made new and glorious at the thought of seeing Meriel again—and preparing for their wedding.

He hailed the first cab after leaving the train, and gave a command to be executed without delay. Thrusting a five-dollar bill in the driver's hand, he almost bounded up the stone steps of the Toylmore mansion and pressed the electric button.

"Is Mrs. Toylmore in?" he inquired with a touch of expectant joy.

The stiff butler, with the dignity due his position, dryly answered:

"Mrs.—er—er—Clivers and her husband left for Europe day before yesterday. She instructed me to say that they will not return until the winter season."

(To be continued.)



OLD-TIMER TALES—No. 5.

The First Locomotive Race.

BY C. F. CARTER.

WHAT would you think of a locomotive race, similar to the event described in Mr. Carter's article, taking place to-day? Wouldn't it be looked upon as a silly proposition—bunching a lot of locomotives against one another like so many race-horses? And yet—sixty years ago—it was something of a rare sport. This Old-Timer tale shows better than facts and figures the wonderful development in the steam-locomotive since the day when it was entered in a racing event to amuse the public.

The "Addison Gilmore" Looked Like a Sure Winner but She Was Disqualified for Carrying Steam Pressure Above the Prescribed Limit—120 Pounds.



WHEN the Middlesex Mechanic Association was racking its collective brain for a star attraction that would insure a good attendance at its "Exhibition of Improvements in the Mechanic Arts and Manufactured Articles," which was to open in Lowell, Massachusetts, September 6, 1851, some genius whose name has not been preserved proposed a locomotive race.

As it was only twenty years since Phineas Davis had built the "York," which won the prize of four thousand dollars offered by the Baltimore and Ohio Railroad for the best locomotive, the railroad was still a good deal of a novelty in which popular interest was lively.

People were still writing letters to the newspapers describing the delights of railroad travel and arguing that it was the best method ever invented for getting over the ground. Its possibilities were beginning to be understood, and the

railroad craze was then at its height. Under these circumstances, the suggestion of a locomotive race was hailed as an inspiration.

All the railroads, as well as all the locomotive manufacturers, which included almost every machine-shop in the country, were invited to send locomotives to take part in the race and also to exhibit railroad appliances.

The New England Association of Railroad Superintendents, the first railroad organization, was invited to take charge of the race. The invitation was accepted, and Waldo Higginson, L. Tilton, and William P. Parrott were appointed judges.

But Still a "Race."

The first thing the committee did was to call the "race" a "test," which was less calculated to make the strong popular appeal desired than the "race" hit upon by the Middlesex Mechanic Association. Fortunately the newspapers and the public could not be deceived by any

Series began in the February Railroad Man's Magazine. Single Copies, 10 cents.

high-sounding scientific talk. They knew a race when they saw it, no matter what it was called; and as a race the affair continued to be described in print.

Certainly the conditions read as if governing a race, and the prizes were for speed alone. Passenger-locomotives were required to show their speed with a steam pressure between 80 and 120 pounds, hauling a train furnished by the agent of the Boston and Maine which consisted of six covered freight-cars, each containing a load of five tons, and one long passenger-car containing twenty-one men.

The train, which was assumed to be equivalent to six loaded passenger-cars, weighed 85 tons; it was 225 feet long, 10 feet high above the rail, and 8 feet wide, thus displacing 17,680 cubic feet of air.

The engines were to start at a given signal from the fifteenth mile-post, numbering from Boston, on the Boston and Lowell Railroad, and run to the twenty-fourth mile-post. The engine that covered the nine miles in the shortest time was to get a gold medal. The second prize was a silver medal.

The freight-engines were to be tried like draft-horses for their power to take heavy loads, yet they were to race the same as the passenger-engines—those covering the distance in the shortest time to get a gold medal.

The Course for Freights.

There were no dynamometers nor anything else to test the draw-bar pull. Indeed, no one knew anything about draw-bar pull. The train was to consist of 114 loaded freight-cars; but as the total weight of the train was only 650 tons, they could not have been very large cars.

The course for the freight-engines was a branch 9,100 feet long, connecting the Boston and Lowell with the Boston and Maine at Wilmington, Massachusetts. At the signal, each engine was to back its train up an "inclined plane" with the terrific grade of fourteen feet to the mile. On reaching the top of the hill the engineer was to reverse and make the best time he could to the other end of the course.

Ten locomotives were entered. At length the great days arrived—Wednes-

day and Thursday, October 1 and 2, 1851. A great crowd assembled at the fifteenth mile-post, for the passenger race was to take place first.

Disgusted and Disqualified.

The first to start was the "Addison Gilmore," just from the shops of the Amoskeag Manufacturing Company. The October sun was reflected from fresh varnish, glittering steel, and polished brass until it dazzled beholders. The contrast between the "Addison Gilmore" and the other engines which had been taken from their regular work on the road, predisposed the crowd toward it, and it was a strong favorite in the betting.

There was a wild cheer as the "Addison Gilmore," with steam roaring from its safety-valve, darted away at the signal and soon disappeared in a cloud of smoke and dust. In a little more than half an hour the prize beauty of the locomotive contest came puffing back, with a disgusted-looking engineer lolling disconsolately out of the cab-window.

The "Gilmore" had been disqualified for carrying steam pressure above the prescribed limit. Her time for the 9 miles was 14 minutes 25 seconds, which the crowd considered pretty fast.

"The Essex," an inside connected engine belonging to the Boston and Lowell, with cylinders 15 x 20 inches and a single pair of drivers six feet in diameter, was the next to couple on to the racing-train. The distance was covered in 14 minutes 33 seconds.

This increased the popular wrath against the engineer of the "Addison Gilmore," whose bungling had disqualified his swift racer.

The Heaviest Entry.

But the next contestant, the "Nathan Hale," belonging to the Boston and Worcester, also inside connected, with two pairs of drivers five and a half feet in diameter, took the popular breath away by getting over the course in the remarkably fast time of 12 minutes 30 seconds—almost two minutes less than the "Gilmore's" time.

There was another "Addison Gil-

more" entered, owned by the Western Railroad, built a few months before by Hinckley & Drury. This engine was something of a novelty. It had outside connections, while eight out of the ten entered in the race had inside connections. It had cylinders $15\frac{3}{8}$ x 26 inches, and a single pair of drivers 6 feet 9 inches in diameter. It was the heaviest engine entered, weighing 50,885 pounds, less than one-eighth of the weight of one of the Mallet engines now in use on the Erie.

This "Addison Gilmore" established its claim to the gold medal and drew favorable attention to outside connections by covering the nine miles in 11 minutes 29 seconds. The silver medal was awarded to the "Nathan Hale."

The race for freight-engines was won by the "Milo," also built by Hinckley & Drury, and owned by the Boston and

Lowell, a monster with cylinders $13\frac{1}{2}$ x 20 inches, three pairs of drivers four feet in diameter, and a total weight in working trim of $19\frac{1}{2}$ tons. Time for the 9,100 feet, 10 minutes 24 seconds.

The silver medal for freight-engines was won by the St. Clair, owned by the Ogdensburg Railroad, in 10 minutes 54 seconds. The "St. Clair" was inside connected, with cylinders 15 x 20 inches, two pairs of drivers 4 feet 6 inches in diameter, and weighed 48,650 pounds.

The locomotive race was a great success as a popular attraction and it also pleased the railroad men. The committee apologized for not being able to find out more about locomotives, but excused itself on the ground that it had no precedents to guide it, as nothing of the kind had ever been attempted except the Rainhill trials in England twenty years before.

JUST BENT A LITTLE.

A Few of the Things That Happened to a Couple of Affectionate Locomotives.

THE 425 and the 325, Chicago and Alton engineers, came in from Venice lately, where they had been the principal performers in a head-on collision. They presented a sadly demoralized condition, and will be expensive to repair. The front ends were stove in and wrecked back to the boilers, the pilots smashed away, and the frames doubled up like paper. The cylinder cast-

ings were also so badly broken that entire new ones will have to be supplied; the cabs were smashed away, the front trucks missing, the jackets torn away, and the inside mechanism on the boiler-head so battered and smashed that it will all have to be replaced. The locomotives were bunged up worse than has occurred in any accident on the Alton for many years.—*Exchange*.

RAILROAD SCHOOL OF MANNERS.

LESSONS in deportment and etiquette are the latest innovation on the Union Pacific. The education bureau of the company, which is under the management of D. C. Buell, has undertaken to educate the employees as to how they should best conduct themselves when coming in contact with the public.

Nearly one thousand employees of the railroad are now enrolled in the school,

and many additional applications are being received daily.

What the crabbed employee is likely to do to a railroad is set forth vividly. He is said to give the public a bad impression of the railroad, which results in unpopularity, which, in turn, may lead to adverse legislation. The value of reading human nature and of being a "mixer" is said to be almost inestimable.

Oil is good on the bearings, but bad on the rails. Be smooth, but don't be slippery.—Carpet Communings.



THE BRICKS THAT WENT C.O.D.

BY IRWIN THOMAS.

Three Trunks Were Shipped to San Francisco—
They Were Heavy, and Nobody Claimed Them.

RANSOME, sit down!" said the superintendent of the Western Express Company, when a tall, lank, shrewd-eyed, sinewy-looking man came into his office in response to a request that the superintendent wished to see the chief of detectives.

"What's the trouble now, Mr. Bailey?" asked Ransome, as he slid into a chair.

"This is one I have had passed to me from the Pacific Division," said the superintendent. "They say it is up to the New York office, and maybe it is. For six months, Ransome, this company has been robbed of thousands of dollars—not stolen in money, but in labor and charges.

"I'll tell it to you briefly, then you can take this correspondence and look it over. I want you to work on it personally, because it must be stopped.

"Last July, some one shipped three trunks, C. O. D., to San Francisco. They were wonders. They were tied with rope and reenforced with slats—and they stood the trip. They weighed two hundred and forty pounds, or more, each. They never were claimed. That was the beginning. Since then, in boxes and barrels and in wrapping-paper, this fellow has been shipping bricks, old iron, and anything that will weigh, to some fictitious person in San Francisco.

"He has shipped from Boston, New York, Philadelphia; and one shipment, two hundred pounds of what was part of an old anchor, came from Halifax.

"This stuff has been going over every day or every week. There are probably half a dozen shipments between here and the coast now. There's a storehouse full of junk out there. We were some months getting on to it, and did not realize what we were up against until we were getting

ready for a sale of unclaimed express. The trunks were the first opened; they were filled with old bricks.

"I think the fellow is a lunatic. But we must land him, because we are getting so that any time a man offers a particularly heavy bit of merchandise, we feel like we are being done. What do you think?"

"Maybe it's the work of a bug, but it looks to me like a grouch," replied Ransome. "Maybe some fellow who has been fired and who was working on the run out West, and just likes to think of the man who has his job wrestling with a ton of junk. Or, maybe he is getting even with the company."

"Well, get at it, Ransome. Get busy, and see what you can do, and let me know what you find out. I'll give you anything else that turns up on it," and the superintendent turned over to the detective a mass of correspondence, including the way-bills for the junk that was piling up in the San Francisco office and storage-house.

The way-bills showed the shipments. They had come from hotels, had been carried into branch offices by expressmen, and expressed at New York. In Philadelphia, the stuff had all been carried to the offices. There were no descriptions of the man, because, in the time that had elapsed, clerks could not remember him.

"He's been a busy man," commented the detective as he ran over the shipments, more than forty in all. Then he made a note of the date of the shipments in New York, and those in Philadelphia and Boston, and the one from Halifax.

"That's a pyramid," said Ransome. "He started this in New York, went to Philadelphia, came back to New York, went to Boston, then to Halifax. He was gone two weeks, and came back to Boston, made three shipments from there, and returned to New York."

"The man I want was in New York on these dates, in Philadelphia on these, in Boston on these, and in Halifax when this shipment was made. It looks like Halifax as a starter."

Four days later, Ransome was in Halifax.

The hotel registers of the city were copied for the week. From the express-

agent it was learned that the package consigned to San Francisco had been delivered by some one in a cab. That was about all he remembered.

The records of the Boston hotels were obtained for the week before and the week after the episode. For two days Ransome sat with an assistant in Boston and checked off the names. Through this system of comparison the names of twenty-five persons who had been in Halifax for a week, and who had been in Boston a week before and a week after, were found by the detective.

During the work of eliminating this, that, or the other from the list, Ransome was interrupted by a telegram, which called him to New York to see Mr. Bailey.

"Your friend has been working out West," said Bailey, when Ransome came into the home office. "We have uncovered a box of sand, a trunk filled with old bricks from the fire in San Francisco, and a barrel of empty tin cans and scrap-iron. All told, they weigh about five hundred pounds, and are in the unclaimed package-room here in New York. There is probably a ton of this stuff on the road now."

"It looks to me like one of these was the person," said Ransome, displaying his list, and explaining how he obtained it.

"That's intelligent work, if it isn't anything else," replied the superintendent. "But can't you get more men to help you?"

"I'm going to take three men to Philadelphia to-day, and by to-morrow will have a closer line on this thing than we have now. This is something that cannot be done in a minute."

"I know; but it has got to be cleared up. I have sent out a circular, asking agents to note particularly any one expressing more than one hundred pounds to San Francisco, unless the person is a well-known shipper. That may bring results."

The offices of the superintendent were in the rear of the general receiving department of the main office. The conversation of Ransome and Bailey was interrupted by the appearance of Fogarty, a receiving clerk.

"Mr. Bailey," said Fogarty, "I didn't

want to come in unannounced, but there's a man outside that comes under the head of that circular sent out to-day. He's shipping two boxes to a man at a hotel in San Francisco. They weigh over one hundred pounds each. They're almost as heavy as lead.

"He's expressing them C. O. D., and when I asked him what was in them, he said it was none of my business—that the value was nominal. You can see him through the glass door. I made an excuse to get away, and thought I'd tell you."

At the counter stood a fussy-looking little old man, who, when Fogarty came out, was fuming at the delay.

"Here! I want my express receipts for these boxes. My time's limited! I got none to waste on a lot of understrap-pers around here," he said.

"But you ought to say whether that is merchandise or not," said Fogarty, playing for time, while Ransome went around the office and obtained a good look at the man.

"You just back up, young fellow," replied the other. "It doesn't make any difference whether one box contains sewer-pipe or bricks and the other contains green cheese. I'm shipping them, and you are a common carrier. You've got to take them. I demand it of you!"

"On these heavy shipments to the coast we generally like to know who is sending them. Sometimes the man to whom they are consigned doesn't want to receive them," said the clerk politely.

"From my knowledge of an express company, the consignee has time to grow old and die before the stuff arrives there. Now, if you are so absolutely inquisitive about the contents of those boxes, one contains bricks—B-R-I-C-K-S—bricks, and the other contains bricks—B-R-I-C-K-S—bricks! And there's my card."

The old man fairly shrieked it. Ransome heard him, and so did Bailey.

"Excuse me, but what is the trouble?" inquired Ransome, coming forward.

"No trouble. I am trying to ship some stuff here—trying to let this monopoly make a few dollars—and this person here, who hasn't the intelligence of a second man at a bootblack-stand, wants to know my business, wants to make my business his-business. My name is George Washington Wallingford. I'm a—"

"Were you in Boston and Halifax last summer, and did you register as G. W. Wallingford?" asked Ransome quickly, with the knowledge of that name on his suspect-list.

"I certainly was there, and I didn't



"MAYBE IT'S THE WORK OF A BUG, BUT IT LOOKS TO ME LIKE A GROUCH."

register as any one else," replied the old man. "And, let me tell you, I'm not ashamed of my name!"

"Come with me," said Ransome. "Come in and see the superintendent."

"I don't want to be hard on the young fool," said the old man. "If you will

"And what for?" asked Wallingford. "Is he sick?"

"Mr. Wallingford, it's got to stop!" said Bailey.

"Well, you are the people to stop it. You can't expect your customers to stop it," replied the old man calmly. "When



just speak to him, and let him know that he ought to be civil and polite, and you can't get along in the world by acting as he is—that will be all."

Ransome led him into the office of the superintendent.

"This is our man," said Ransome. "Been in Boston and Halifax, and admits he is shipping bricks now."

"What do you mean?" demanded the old man.

"Now, Mr. Wallingford, you have been shipping a lot of bricks and junk through our company, and you had better make a clean breast of it," said Bailey. "This is a very serious matter."

"You bet it's a serious matter—a young clerk out there poking his nose into my business. I don't want him fired," replied Wallingford.

"I think we ought to get an ambulance," said Ransome.

a thing's wrong in my business, I stop it."

"Now, Mr. Wallingford, we don't want any scene. We are going to call an ambulance. You're ill, and you go along with the doctor when he comes," said Bailey.

"I go with a doctor!" exploded the old fellow. "I go with a doctor! I go with a doctor! What's the matter here? What does this mean?"

"Don't get violent," said Ransome.

"I'm not getting violent; but you can ship those bricks, or leave them," he said. "I'm busy; but, remember, I delivered those bricks to you to-day, and they want to be on their way to-night. I'm going. That taxicab is eating its head off."

He started for the door. Ransome barred the way.

"What is this? What does this mean?" demanded the old man.

"Now, don't get excited," said Ransome. "You must stay here till we get an ambulance, or we will call a policeman."

"Great peppers!" exclaimed the old man. "I don't understand this flim-flam game. But may I use that phone?"

"Yes," said Bailey, and the old man took up the receiver, while Ransome whispered to a clerk to get the policeman on the post and tell him to call an ambulance for a crazy man.

"Hallo! Is this the office of Judge Johnson?" asked the old man when he obtained his connection. It was, and he requested to be switched onto the judge's wire.

"Hallo, judge!" said Wallingford, a bit excited. "This is George W. Wallingford. I'm in some scrape over here in the Western Express Company's office. I think I am accused of larceny, burglary, train-robbery, and, in addition, am threatened with incarceration. No, I don't know. Come over and find out what it's about."

Turning from the phone, the old man said: "My attorney will be here in about a minute. He's just over at No. 111, and I guess we'll find out who's who."

While waiting for the arrival of the lawyer and the ambulance, the trio sat in silence, Wallingford snorting now and then. It was not a long wait. Johnson was the first to arrive.

"What's the matter?" asked Johnson as he came in. By reputation he was known to the superintendent of the express company. He was in class "A plus some" among attorneys.

"I don't know," said Wallingford. "I'm a prisoner. Ask the jailers. This fellow is the main warden," pointing to Bailey.

Johnson turned inquiringly, and Bailey said:

"For months, this old man has been shipping brick and everything else to a supposititious person in the West. There's tons of trash in our unclaimed department sent by him, and now he tries to ship two more boxes of brick. He's a lunatic, and we want him locked up."

"I ain't a lunatic, and I never shipped any brick by express in my life before to-day," said Wallingford hotly, rising and shaking his fist at Bailey.

"What if you did?" said Johnson. "That's not a criminal offense. If you want to ship the whole output of your brick-yard and tile-works by express, these people have to carry it." There was the clang of an ambulance-bell outside, and a white-coated doctor and a policeman hurried in.

"Stay out there for a minute," said Johnson, closing the door and then turning to Bailey: "Mr. Wallingford is not in need of the services of a physician. Now, if he goes away from here, he goes as a prisoner. What is your charge? What's it all about?"

"He's been shipping this junk," said Bailey.

"I said you're a liar! I say it again!" interrupted the old man.

"He's getting violent," said Ransome.

"I'm losing the biggest contract that was ever let in the West, if those two boxes of bricks aren't in San Francisco in time for the contractor to show the kind of material he proposes to use!" blurted the old man.

"I don't care what you do about arresting me. But those bricks must get off to San Francisco to-night. Do you suppose I would have brought them into the general office here and hired a taxicab if I didn't want them to go? Do you suppose that I wished every one to know that the Guardian Tile and Brick Company was figuring on putting a plant in California if it got the contract? Poking your nose in my business! Why, Johnson, these people are a lot of idiots! It all started with that whipper-snapper out there with the fish eyes and sloping forehead!"

He pointed to Fogarty.

Guardian Tile and Brick Company, contracts, a lawyer, and the few other things, caused a shortening of sail on the part of Bailey and Ransome.

Bailey even offered to explain everything if Mr. Wallingford would be quiet. Johnson said his client would, but it must be understood he made no waiver to any rights he had in a suit, as he had been detained a prisoner. Bailey then told what had aroused the suspicions of the company. Of course, Bailey and Ransome were sorry for the mistake.

With a lawyer seeing everything and taking everything at its legal value, there

were no difficulties, except that the brick manufacturer, justly indignant, was threatening suit.

"You don't think he will sue, do you?" asked Ransome.

"No," said Bailey. "Johnson's a sensible man. His business is largely with corporations, and he understands. But it has shown us one thing—we cannot be too careful. A coincidence like this is likely to happen any time."

The telephone-bell rang, and Mr. Bailey answered it. When he had finished with the person on the wire, he turned to Ransome and said:

"That was the agent in Jersey City. He says that while unloading a grand piano, or what was supposed to be one—it being in a piano-box—the thing dropped on the platform and was wrecked. As near as he can make out, it contains what was once a fire-escape, and was packed in excelsior. It weighed eleven hundred pounds, and was shipped from St. Louis four days ago. Can you beat that?"

"I can't even tie it!" replied Ransome. "Our man is working East. He is one of the men whose name is on this list. I'm going to save time and wire this list to St. Louis, and ask an agency there to look over the hotel registers and find if any one of these men were in St. Louis within the past week."

"Do it now," said Bailey.

In an hour the list, with a request that every hotel be combed, was in the hands of a private detective agency in St. Louis. Orders also went to the express-agent to get every particular as to the shipment of a piano on the date mentioned, and advised him that Mr. Ransome would be in St. Louis the following afternoon.

There was just time to catch the twenty-four-hour train to the Mound City, and Ransome went West on it. When he arrived he found everything waiting for him. The only man of the twenty-five on his list who had been in St. Louis was George W. Wallingford, who had registered at one of the hotels. Wallingford had been there, attending a conference of manufacturers, and had made an address before the gathering on the utilization of a combination of steel and clay and iron and clay in fire-brick.

Ransome gasped as he obtained a de-

scription of the man, and recognized the one who, less than a day and a half before, had been shipping bricks in the main office in New York. From the express-agent it was learned that he had found that the man who shipped the stuff had purchased a piano-box across the street, where there had been a fire in which the fire-escape had been badly twisted by the heat.

The purchaser had had part of the escape packed into the box, and had ordered it shipped to the Guardian Tile and Brick Company of New Jersey.

The next morning, Ransome sent a telegram to Superintendent Bailey, telling him all, and that he would be in New York next day.

"Well," said Ransome, when he showed up at the office of the superintendent, "what's he say now?"

"We gathered up the piece of scrap-iron the best we could, and Wallingford paid thirty-three dollars express on it without a murmur. But he has been on the phone since, demanding some part of the junk that he says is missing.

"I went over and saw Johnson. He says that it is all right—that the old man bought the iron because it had been through fire and subjected to a terrific heat. He wishes to do something in the combination of fire-brick and iron, and wanted that stuff for laboratory experiments. He wanted that particularly, because a lot of manufacturers out there saw the fire, and he proposes to demonstrate some theory that he expounded at their annual convention. I guess we had better cut Wallingford out of any future consideration in this matter."

"I'm willing to cut him out, but he insists upon butting in," said Ransome.

"This looks to me as if it will have to be solved by chance," said Bailey.

"Not at all," replied the detective. "It will come by the process of elimination. Wallingford was the exception that proved the rule. If he had not butted in, the chances are the hotel registers of Philadelphia would have eliminated him, although, with a factory in Jersey, it is more than likely he will be found registered at Philadelphia, too. I'm going there in the morning."

Ransome was gone for several days. There came no word of him, and there



"YOU HAD BETTER MAKE A CLEAN BREAST OF IT."

were no more shipments of junk recorded, so far as known. From the South, one day, Bailey received a telegram, which read:

All over but the shouting. Am starting home.
RANSOME.

For two days, Bailey fretted with anxiety.

"I won't ask you to guess," said Ransome, when he arrived.

"This was a purely speculative proposition on the part of a band of crooks who did not have the courage to crack a safe," said the detective.

"In Philadelphia, there was just one man left. When I began to look him up, I found that he had a police record. Further, I learned that, at one time, he had worked for us, and, later, had worked for the Pullman Company. In time, he was discharged for crookedness.

"He is now in the Georgia Penitentiary for forgery. He conceived the plan, and it was all with the hope of making a few hundred dollars. Through his former connections, which were in San Fran-

cisco, and through a clerk here, who has since left the service, he hoped for aid.

"He learned from railroad reports that express packages frequently go astray, for which the company must pay.

"When the opportunity presented itself in New York, he gathered a box or two, filled them with stuff, and shipped them to San Francisco. His friend there was informed of the shipment, and kept him informed as to its arrival. What gave him the idea was that he lost a uniform while he was in the Pullman service, and we paid him what it cost him.

"He figured that the longer the haul the greater the chance of its being lost. He shipped from points East until he was shifted to the West, and then he shipped to points East. He generally stopped at one of the commercial hotels.

"He used any name he wanted—never his own and never the same name twice. Two packages were never delivered to this office, and he has claims against the company. The claim, he said, was being put forth in the name of a friend in San Francisco, who, according to him, is perfectly innocent.

"It's for a box that weighed one hundred pounds, shipped last October. His working partner here in the office advised him that it did not arrive. He directed me to a friend in Atlanta, who had his effects. There I got these," and Ransome drew forth several dozen receipts.

"Good work, Ransome!" said Bailey.

"Yes, but let us be thankful that he committed forgery."

Just then a clerk came in, and said that an old man was outside.

"Show him in," said Bailey, and G. Washington Wallingford entered.

"Delighted to see you, Mr. Wallingford," said the pair in chorus. "What can we do for you?"

"Do for me! What haven't you done to me that you can do? Look at that telegram! That's from my traveling salesman!" He read this telegram:

G. WASHINGTON WALLINGFORD: Have been arrested and held here as a suspicious person because I was seeking information about shipment of bricks. Express company, the complainant, says I am a lunatic. Contractor gets in from Spokane to-morrow. Must have bricks to close with him. Won't let me have a lawyer, and won't even let me pay for bricks. Have them as evidence.

ANDREW MCSCHLAPP.

"What kind of concern is this?" demanded Wallingford.

"I'll attend to it right away. I'll telegraph to San Francisco," replied Mr. Bailey, and he wrote:

AGENT, SAN FRANCISCO: Big mistake made in arrest of Mr. Andrew McSchlapp. Release him at once, withdraw complaint, and give the bricks to him. Has no connection with other shipments. Advise me at once of his release. Must act quickly.

BAILEY, Superintendent.

"He will be released five minutes after this gets there," said Bailey. "Give me your telephone number, and I'll call you in an hour or so."

"Telephone Judge Johnson!"

"I'm through. You're too much for me," said Wallingford. "He's drawing papers now for suits against this company, and if I ever ship another brick by express I'll forfeit the right to be known by my front name! Good day!" and George Washington Wallingford stalked out.

"A funny world, Ransome," remarked Bailey.

"Yes, it is, when you can't tell whether a man who ships bricks by express is a nut, a crook, or a shrewd business man," replied the detective.

SIMPLIFY RAILROAD LANGUAGE.

J. A. REEVES, general freight agent of the Oregon Short Line, is quoted in deprecation of the terminology employed in many railroad affairs, and believes it is responsible for much misunderstanding arising between the public and railroads. In elucidating this he says:

"Such terms as a blanket-rate, for instance, we use in this office every few minutes, and we are too apt to forget that it means absolutely nothing to the average business man. To us it is clear as crystal, and when we, as railroad men, try to talk to the public we naturally fall into the expressions of our everyday life.

"Take doctors, for instance. I, for one, know that the usual conversation or written articles by a physician is all Greek to me. He scares me to death with a name a foot long that, after I have looked in the dictionary, I find means only a sore throat.

"So it is to a large extent in the railroad

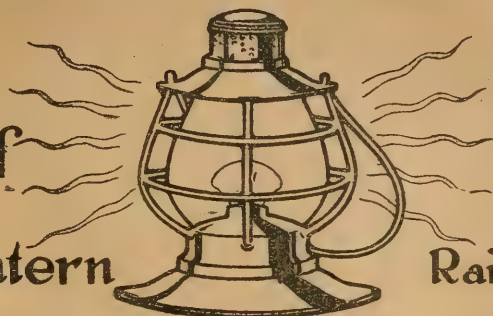
business. Now, take the expression, 'mileage rate.' To a railroad man nothing could be plainer, but I have come to know that to the average intelligent citizen it means nothing.

"Class rates,' 'commodity rates,' 'differentials,' 'demurrage,' 'what the traffic will bear,' 'joint cost,' 'constructive mileage,' 'water competition,' 'grading back,' 'distributing points,' 'basing points,' 'zones,' 'postage-stamp rate'—all these expressions appear to be a language used only by railroad men, and those few others whose business throws them into close contact with shipping and freight matters in general.

"I will admit that it is up to the railroads to tell what they have to say in plain English, and not in the peculiar lingo we talk among ourselves. I do not know of a single book that explains the subject of rates, for instance, in plain everyday language commonly understood by the average citizen.

WHAT'S THE ANSWER ?

By the
Light of
the Lantern



Questions
Answered
for
Railroad Men

ASK US !

WE like to be as useful to our readers as we can; but, because of the great popularity of this department, we are forced to impose certain restrictions. In future, we shall be compelled to limit its scope to the answering of questions of an informative, technical, or historical nature only. Letters concerning positions **WILL NOT** be answered in this department. All letters should be signed with the full name of the writer, as an indication of his good faith. We will print only his initials.

HOW is wrought iron made? (2) What was the earliest process for making steel?—M. S. B., Philadelphia.

(1) Wrought iron is the product of the puddling process. It is made in a reverberatory furnace by melting pig iron on a hearth of iron oxide, over which passes a reducing flame which causes the carbon to unite with the oxide, during the mixing which the puddler gives it, and further causes a large portion of the impurities to enter the surrounding slag. As the impurities—carbon, manganese, phosphorus, sulfur, silicon—leave the molten iron, the melting point rises so that the iron becomes first viscous, then pasty.

When it has been worked into a ball the puddler carries it, still at a welding-heat, to the hammer or squeezer, where the greater part of the slag which permeated it is expelled from the mass. The roughly shaped slab is then rolled into muck bar, which latter, when piled, rolled, and rerolled, becomes the wrought iron of commerce.

(2) The cementation process is the oldest for making steel, and was founded on the fact that wrought iron, if packed in

charcoal, and heated to a high temperature, while excluded from air, absorbs carbon. The process consisted in packing bars of wrought iron, of about three quarter-inch thickness, in charcoal, and then sealing up the vessel and keeping it at a yellow heat until the carbon had penetrated to the centers of the bars and converted them into steel.

It was a slow procedure, as the carbon penetrated only at the rate of one-eighth inch in twenty-four hours. The use of steel made by this process was always limited, due to the fact that it contained the old seams and slag marks, which everywhere crossed and recrossed the iron, causing great trouble in the manufacture of cutting tools.

By melting this steel, however, in a covered crucible, the seams and fibers of slag all disappeared, and a homogeneous ingot was the result. But this was still a long way to a steel ingot, and the pursuit of cheapness eventually gave rise to the direct method of melting iron in a crucible, made for the purpose, together with the requisite carbon and other ingredients necessary for imparting hardness, tough-

ness, etc. This in turn was succeeded by the Bessemer process, and this largely by the present open hearth method.

G. W., Yarmouth, Nova Scotia.—(1) You should not attempt the use of cement of any grade to keep boiler-tubes tight, whether on a model boiler or not. We cannot recommend any cement, because we don't know of any which would be satisfactory in the presence of heat and water conditions. If the tubes are properly set, which of course must be done, no cement or any other agent is necessary.

(2) Steam gages can be secured in any size and for any desired indication. You will find numerous advertisements of manufacturers of boiler fittings in the technical papers. See reply to "R. W. B." in the Lantern Department of the April RAILROAD MAN'S MAGAZINE.

(3) Sixteen years is rather young to enter railroad service in any capacity, but if you have an aptitude for mechanical problems, as your letter suggests, our advice would be for you to enroll as an apprentice with one of the big roads. You could not get on as fireman, for some time anyhow, and it might be that contact with the machinist's trade would prove so pleasing that you would forget all about your idea of some day running an engine. Better make haste slowly in decisions of this kind.

WHY is it necessary for a train that is on a siding to be moving slowly while being passed? Why not let it stand still?

(2) When a coach or any other kind of truck becomes dry, and a hot box occurs, while the train is running at the rate of forty-five miles per hour, what is liable to happen to the truck or wheel?

(3) Why are the rates more coming from the West to the East, than they are going from the East to the West?—H. D. P., Cleveland, Ohio.

(1) You are either mixed, or your question has mixed us. There is no such proceeding. The freight-trains generally pull down to the end of the turn-out in the direction in which they are moving, to allow room for any other freight which may come up behind. There is little room for any maneuvering with the long freight-trains of to-day.

(2) Nothing will happen, as the hot box will be discovered and the proper remedy applied before any serious phase is assumed. Of course to deliberately run the box without attention might result in the journal becoming so hot that it would twist off, but this is a very rare accident, and must have

unpleasant consequences for whoever is responsible.

(3) The rate business is a queer game, and, to be candid, we don't know. It has been suggested that the reason for the difference in the territory west of Chicago is to favor the home-seekers and colonists, the same consideration of course not applying in the travel from West to East. This seems reasonable.

ARE there any roads which use "19" orders altogether, with some additional safeguards?

(2) Is the Pennsylvania a four-track railroad from Pittsburgh to New York?

(3) Which road carries the largest coal traffic in the East, and what time of the year is it moved?—A. B. K., Clinton, Iowa.

(1) Don't know of any.

(2) Practically all the way.

(3) It is about even up between the Baltimore and Ohio, Philadelphia and Reading, and the Pennsylvania. The heaviest movement is generally in the spring.

O. F. A., Waterloo, Iowa.—(1) If there is such a thing as a standard freight-engine on Eastern roads, the 2-8-0 type would best express it, so far as the wheel-base is concerned, but there is a wide latitude in the boilers and other features of design. As your question asked particularly about the wheel arrangement this will no doubt supply the information; they have an engine-truck with a single pair of wheels, eight connected drivers—four per side, of course—and no trailer. The weight is approximately 100 tons.

(2) The road referred to has quite a good freight business, and has increased its freight-cars to a present total of 1,669. We cannot recall any part of it having six tracks, although in many places four tracks are in evidence.

(3) There are few train orders issued where the absolute block system prevails, but in such cases they are sent to the station operators.

W. H. E., Haswell, Colorado.—The second-hand on a railroadman's watch, or any other watch excepting a stop-watch, is not of any particular value save that it indicates exactly the variation of the time-piece from the chronometer or standard clock by which the watch is regulated. Road men compare with this latter whenever opportunity permits, and get naturally a much better line on what their watches are doing than if they had to depend on the minute-hand alone.

Every roadman, as a rule, knows exactly the variation exhibited by the watch he carries. When the watch leaves the inspector, after one of the periodical examinations, it is set to have the second-hand run evenly with the minute-hand, and it will continue to do so unless the owner allows it to run down, and fails to use proper care in properly setting the minute-hand when he starts it.

E. E. H., Roseville, Colorado.—No opportunities in the Hawaiian Islands for car-builders as yet, and no prospects of there being any. Do not think of going there to depend on that line of work.

G. C., Pittsburgh, Pennsylvania.—So far as we can learn opportunities are fairly good for steam-railroadmen on the west coast, better of course in southern California than in the immediate vicinity of San Francisco, as there are less men to draw from. Having had experience in the dual capacities of fireman and brakeman you should not experience any particular trouble in getting work. The pay is generally much better than in the East. We never heard of any roads only running six months in that section, but of course, slack times occasionally intrude which necessitate reductions and rearrangement of the trainmen.

J. V. S., Loring, Alaska.—The Mississippi River and Bonne Terre Railway has headquarters at Bonne Terre, Missouri. It is forty-six miles long, standard gage; has nineteen locomotives and 1115 cars.

WHAT causes an injector to make a clicking sound when working?

(2) What effect does it have on a water pump to reduce the size of the suction-pipe, say to half the original size, and just what effect would it have especially on a high lift?—P. J. F., Mechanicsville, New York.

(1) There is a clicking noise at times when an injector is being started, and also when shut off, in both instances this being the seating of the check-valve. Any such noise when the instrument is supposed to be working is a pretty good indication that it is about to "break." You, of course, understand that when an injector is working perfectly there is always a continuous and rather harmonious accompanying sound due to the speed of the delivery-stream through the long branch pipe, etc., and any variation in the familiar cadence generally

implies that something is going wrong in a short time.

(2) Reducing the suction of a pump simply reduces the quantity of water supplied to the plunger. Unless the area of the suction is reduced too much it will not have any material difference on the working of the pump, although the supply by the atmospheric pressure should be as free as possible. If the supply is too greatly reduced it will entail hard labor on the suction end of the pump, and will also cause it to work by jerks.

A. R., Boston, Massachusetts.—The larger railroads do not maintain exactly what might be called an "inventive department," but some of them, notably the Pennsylvania, spend annually considerable time and money in perfecting ideas, which have been suggested for the betterment of cars, locomotives, and shop practises. This road has no doubt spent more money solely for research work than any other anywhere, with the possible exceptions of the Great Northern, or the London and Northwestern, of England.

ACCORDING to the law and its rulings, which went into effect March 4, 1908, how many hours must a railroad office equipped with telegraph service be opened to be considered a night and day office?—F. A. C., Andover, Massachusetts.

For your full information and for that of several others inquiring along the same lines this month, we reproduce Section 2 of the Hours of Service Act, which covers this particular phase:

"That it shall be unlawful for any common carrier, its officers or agents, subject to this act, to require or permit any employee, subject to this act, to be or remain on duty for a longer period than sixteen consecutive hours, and whenever any such employee of such common carrier shall have been continuously on duty for sixteen hours, he shall be relieved, and not required or permitted again to go on duty until he has had at least ten consecutive hours off duty; and no such employee who has been on duty sixteen hours in the aggregate in any twenty-four hour period shall be required or permitted to continue or again go on duty without having had at least eight consecutive hours off duty; *Provided*, That no operator, train despatcher, or other employee, who by the use of the telegraph or telephone despatches, reports, transmits, receives, or delivers orders pertaining to or affecting train movements shall be required or permitted to be or remain on duty for a longer period than nine hours in any twenty-four hour period in all towers, offices, places, and stations continuously

operated night and day, nor for a longer period than thirteen hours in all towers, offices, places, and stations operated only during the daytime, except in cases of emergency, when the employees named in this proviso may be permitted to be and remain on duty for four additional hours in a twenty-four hour period or not exceeding three days in any week; *Provided further*, The Interstate Commerce Commission may, after a full hearing in a particular case and for good cause shown, extend the period within which a common carrier shall comply with the provisions of this proviso as to such case."

J. A. F., Freeport, Illinois.—The idea of three tracks for certain special conditions of traffic has been advocated for many years, but has not been carried out anywhere that we know of in the thorough acceptance of a three-track road. The arrangement is intended to solve the problem presented in an unequal balance of the traffic at certain times of the day.

For instance, over the Erie Railroad, entering Jersey City, it is all inbound in the morning and all outbound in the late afternoon. A third track which you suggest could help out the inbound movement in the morning, and, reversing its functions, help out the outbound in the evening. A train despatcher's duties remain the same no matter what the number of tracks may be.

R. W. H., Bunglass, Canada.—A more accurate calculation would certainly be secured in arriving at tractive effort by squaring the piston diameter and multiplying this result by .7854, but this renders the formula somewhat cumbersome and does not materially affect the result. This refinement has at all events been omitted in the accepted formula, which we quoted in the December Lantern Department. The rule given by M. N. Forney in his valuable "Catechism of the Locomotive" is:

"Multiply together the area of the piston in square inches, the average effective pressure in pounds per square inch on the piston during the whole stroke, and four times the length of the stroke of the piston, and divide the product by the circumference of the wheels, the result will be the tractive power exerted in pounds."

In applying the above-quoted rule it should be borne in mind that the length of the stroke may be taken in feet, inches, or any other measure, but in making the calculation the circumference of the wheels must be taken in the *same* measure as the stroke of the piston. The mean effective pressure is in all cases generally assumed to be 85 per cent of boiler pressure, and many

years experience covering the study of thousands of indicator-cards shows this to be a safe working factor.

However, the accurate way for calculating the average or mean pressure is to divide the length of the piston's stroke in inches by the number of inches at which the steam is cut off; the quotient is the ratio of expansion. Get the hyperbolic logarithm of the ratio of expansion from the table of logarithms, and add 1 to it, and divide the sum by the ratio of expansion and multiply the quotient by the mean absolute steam pressure in the cylinder during its admission. The result will be the mean absolute pressure during the stroke.

To get the mean effective pressure, deduct the atmospheric pressure. Formulas in general are intended for ready application, and while few are entirely flawless they are adequate in securing the information desired.

WHERE is the longest straight piece of railroad track where you can see a train in the daylight all the way, and where is the longest piece of straight track regardless of going over rolling mounds or hills?

(2) Which is the largest railroad in the United States that is under one name, as the Northern Pacific or Southern Pacific, the system roads in connection not to be included?

(3) What is generally the best equipped railroad in the United States in all departments?—R. A. W., Leland, Oregon.

(1) The longest, according to our records, is on the Buenos Ayres and Pacific, in Argentina, where one tangent is 205 miles long. In New South Wales, from Nyngan to Bourke, is a tangent 126 miles in length, and this is practically as level as a billiard-table, although we have no information in regard to how far a train can be seen. Coming a little nearer home the new Grand Trunk Pacific will have a seventy-mile tangent, and on the Canadian Pacific line, from Regina to Arcola, there is ninety-one miles without a curve. The Santa Fe has about fifty miles between Fort Madison, Iowa, and Galesburg, Illinois. We are also under the impression that there is a tangent on the Norfolk and Western between Petersburg and Norfolk, Virginia, sixty-five miles long and which crosses the Dismal Swamp.

(2) The Pennsylvania Railroad probably best answers this question. It has 5,311 miles in the Pennsylvania proper and 2,757 in Pennsylvania lines west of Pittsburgh.

(3) It is impossible to draw any comparison between roads without being unintentionally unfair, and we can only quote

their own claims for preferment. For instance, the Pennsylvania is said to be the "standard" railroad; the Delaware, Lackawanna and Western "the best developed per mile," etc., etc.

They are all efficiently handled everywhere in the operating and mechanical departments, at least, where practically the same ideas prevail. With the exception of what are known as the Harriman lines the operating organization is the same all over the country.



WHAT type of locomotive does the Chicago, Burlington and Quincy Railroad use in passenger and in freight service?

(3) Where can I get a book explaining the different types of locomotives?

(4 and 5) What examinations do firemen have to pass on the Chicago, Burlington and Quincy, and what is the pay?

(6) Which is the best way to fire a large locomotive?—C. S. J., Mendota, Illinois.



(1 and 2) Reference to their lists shows that they have all the standard and modern passenger types, viz.: Atlantic, Pacific, and Prairie. The consolidation, or 2-0-8 type, seems to be the favorite in freight service.

(3) Write *Railway and Locomotive Engineering*, New York City, New York, for list of books on the locomotive.

(4 and 5) It does not vary to any extent from the procedure on any up-to-date road, and which has been repeatedly outlined in this department. The pay we can only estimate, as we are unfamiliar with their schedules. Probably \$2.50 or \$2.75 per hundred miles, but this is only a conjecture.

(6) The fire should be maintained nearly level, but the coal supplied so that the sides and corners of the fire-box are well filled, as in that quarter the liability to drawing air is most imminent. With this system closely followed no difficulty need be experienced in keeping up a steady head of steam. From various causes the fire does not tend to burn evenly all over the grate surface, but thins rapidly in spots, but an experienced fireman in glancing into the fire-box knows where these thin places are and loses no time in filling them up.



WHAT is the correct horse-power of the Southern Pacific locomotive No. 4000, weighing 425,000 pounds, and how do you get it?

(2) Has electricity a greater force in railroading than steam, and which are the largest electric and steam locomotives?—E. G., Monroe, Michigan.

(1) A full description of No. 4000 appeared in the Lantern Department of December, 1909, and the formula for calculating horse-power was explained in the same department of the November, 1909, magazine. You can readily calculate the horse-power for the four cylinders of this engine yourself with this reference. It is said, however, that this engine develops a tractive effort of 94,640 pounds at 12 miles per hour, and through another and shorter formula, permissible with these facts as a basis, we find that:

$$\frac{94,640 \times 12 \text{ M.P.H.}}{375} = 3028 \text{ H.P.}$$

This may roughly serve to afford the information which you are looking for.

(2) We do not exactly understand your application of the word "force" in this connection. By the expenditure of an enormous amount of capital, necessitated by radical changes in existing equipment, it is thoroughly possible to harness electricity as a serviceable motive power for railroads: in other words, the same service can be undertaken which is now handled by steam, provided first costs are thought to be justified.

The largest electric locomotive has been built for the Pennsylvania Railroad for service on the New York City extension of that road. It weighs 330,000 pounds, and will develop 4,000 horse-power. The maximum drawbar pull is 60,000 pounds. The total wheel base is fifty-six feet. The largest steam locomotive is practically the same as No. 4000 of the Southern Pacific above referred to.



WHAT is a "seamless" tube, such as are sometimes advertised for boilers and other purposes?

(2) Is it really possible to make a seamless tube, or is the name merely an attractive advertising feature?—D. E. S., Ridgewood, New Jersey.

(1) A seamless tube is one in which the walls have never been separated from the time the metal was in a molten condition to the time of the completion of the tube. In all tubes formed with a seam the edges have first been separated, then united, either by lap or butt weld, or some lock-joint system, and in these the joint cannot be eliminated by any after processes.

(2) Yes, it is thoroughly possible to produce a seamless tube by any one of three operations. First, a billet may be, by successive steps, punched into the form of a tube with extremely thick sides, and these may then, by the ordinary drawing proc-

esses, be reduced to a tube with thin walls. Second, the billet may be bored, or the blank may be cast with a hole in it, and in either case then be drawn to the required dimensions.

Third, the tube may be made by the cupping process, which consists in taking a disk of the metal, forming it into a cup shape, gradually elongating the cup and reducing it in diameter, and finally by this means producing a tube. The extending use of compressed air and other gases under high pressure has developed a good demand for these tubes for storage-tanks, transmission lines, etc., but their general use is restricted by the cost of manufacture.

W. F., San Luis Potosi, Mexico.—There is really no such thing as a universal railroad time-table. The nearest thing to it which we can suggest is the "Official Railway Guide," published by the National Railway Publishing Company, 24 Park Place, New York City, New York, and which covers the United States, Canada, Cuba, and Mexico, and Bradshaw's, published in England, obtainable through any book-store. For other foreign countries you will probably have to depend on the tourists' guide-books, it being hardly practicable to secure the time-tables of the individual railroads in this country.

A. R., San Bernardino, California.—The ability to learn telegraphy is dependent, like everything else, on the aptitude of the individual, and it is difficult to even estimate how long a time would be required to become proficient. It would seem that in this, more than any other business, practice would be the main requisite for proficiency.

There is, of course, a steady demand for operators, but we fear that it is exceeded by the supply, and as you are no doubt aware the compensation is not so great as that for many other grades of work of far less responsibility and exactness. We know nothing personally of any schools where this is taught, and so cannot pass on their merits here. In regard to the effect on the eyes it should not prove particularly trying.

D. OES the piston of an engine stop to make a return stroke, and if so, how long?—H. S. P., Pittston, Pennsylvania.

Yes, long enough for the motion of the connecting-rod to change its direction from above to below the center, or vice versa. This occurs at each end of the stroke, but the duration of the actual pause is so brief

that it cannot be detected, unless the parts are at comparatively slow speed. The dead stop of the crosshead, or piston, is quite noticeable in instances where rollers are under the wheels of an engine to set valves, and in fact the stop can be felt with the finger if the engine is not moving faster than six miles an hour.

W. WHY does a locomotive puff smoke when in motion?—G. G. and F. S., New York City.

The steam, after doing its work in the cylinder in propelling the piston, is exhausted into the atmosphere through the smoke-stack, for the double purpose of getting rid of it promptly and to create the vacuum in the smoke arch necessary to secure the draft through the grate and flues demanded in the instance of the very rapid combustion inseparable from a locomotive. The vacuum created by the violent exhaust clears the flues, and hence the smoke which you mention is especially noticeable in most cases while the engine is being fired.

C. E. B., New Haven, Connecticut.—The chances for college graduates with technical training are very good, provided, of course, that sufficient influence exists to secure them an opening in the service. If this influence cannot be commanded the way up must be taken from some subordinate position, as you no doubt understand. The signal department of a railroad is quite attractive, and embodies quite a few possibilities for advancement, but we are inclined to the belief that the general policy is to promote from the lower to the higher positions.

A start, as a rule, must be made as signal repairman; thence to signal supervisor, and to signal engineer. Signal supervisors receive about \$100 per month, and signal engineers \$150 or \$175, but these are only approximate figures, the pay varying widely between different localities.

H. OW many tracks are there in the trainshed of the South Terminal Station, Boston, Massachusetts?

(2) How many trains do they handle per day of twenty-four hours in above?

(3) What terminal in the United States handles the most trains, and how many?

(4) What division in the United States handles the most trains per day?

(5) What is the meaning of "articulated" as applied to Mallet engines?—T. E. D., Medford, Oregon.

(1) This station has twenty-eight tracks. With the exception of six or seven tracks,

toward the Essex Street end of the station, which are used by the trains of the Boston and Albany Railroad, the New York, New Haven and Hartford occupies the entire depot.

(2) On the summer schedules 876 trains. This total is reduced some in winter when the heavy travel between Boston and Cape points terminates. The busy season for the depot is between June 1 and September 1, and between 5 P.M. and 6 P.M. During this latter hour there are 63 trains outbound and some 23 inbound; a total of 86 passenger-trains handled in sixty minutes.

(3) The South Terminal Station. See above.

(4) We have no accurate statistics for this, as conditions are so variable. Some roads maintain their suburban service entirely separate from main-line trains in connection with terminals, while on others they are in combination; that is, on the same tracks. Probably, all things considered, the movement on the New York Central between Grand Central Station and Wood-

lawn, including the New Haven trains which use the former's tracks, represents about the busiest movement in eleven miles.

(5) The word "articulated" was selected in connection with that type of engine as best illustrative of the jointed main frame, which allows independent curvature of each engine in relation to one another.

G. H., Miles City, Montana.—Our records do not indicate any Mallet compound locomotives on the Northern Pacific Railroad, but if this is an error we will no doubt be advised of same by some of our friends in that section.

E. G., Fullerton, California.—If you will address *Railway and Locomotive Engineering*, New York City, New York, telling them the book you want, they will secure it for you. There are several of an informative nature covering questions likely to be asked stationary firemen in applying for an engineer's license.

THE "ORPHAN" OF THE "KATY" SYSTEM.

A RECORD of railway ownership and management that is unique, is the "orphan" of the Missouri, Kansas and Texas system. The "orphan" is a seventy-mile stretch of track entirely detached from the main line or branches, and separated therefrom by three hundred miles of distance. Years ago this detached length of road was dubbed the "orphan," by some facetious brakeman. The title stuck, and by that name it is now known to every official and employee of the M. K. and T. system, from president to call-boy.

A glance at the "Katy" map shows the "orphan," unbending and lonesome, connecting the towns of Trinity and Colmesneil, Texas. It is a heavy black dash in a sea of white, with one or two small black lines running to Houston and Shreveport, important cities of the "Katy" system. The line is as much a part of the great system as is the main line running out of St. Louis, notwithstanding its detached and fatherless condition.

Just how the M. K. and T. secured this portion of its system is a story which runs back many years into the days when Jay Gould was the great power of the railway world.

During the period that Mr. Gould dominated the railroads of Texas, he was the owner of the International and Great Northern, and also president of the M. K.

and T. The Trinity-Colmesneil branch was built by the direction of Gould, doubtless as a part of the great system with which he planned to cover the whole of that region.

Later, there was a division and an apportionment between the different Gould companies, and the Trinity-Colmesneil line fell to the lot of the Missouri, Kansas and Texas Company. It was then that it came to be known as the "orphan."

True to its name, the "orphan" has always caused the "Katy" a great deal of trouble. In order to reach it, expensive and troublesome traffic agreements with connecting lines have been necessary, and its equipment and maintenance have always been far out of proportion to its earning ability.

The "orphan" has never earned its keep. It has been for sale for many years, but none of the connecting lines care to buy. It is regarded as the predominating white elephant of the "Katy" system.

Just now, however, there is a prospect that the "orphan" is about to grow up. Its owners have ordered that surveys be made from both its east and west termini with the view of linking it with the parent system. Its present unorthodox status will probably pass within a short period, thus making the title of "orphan" no longer applicable.—Edmund G. Kinyon.

KEEPING THE CAR RECORDS.

BY F. W. EDER.

One of the Most Important Departments on a Railroad, but the One Which Gets Least Glory—Some of the Brightest Minds on the Line Work There.

HOW many people outside of a few who go into the car-record office daily, ever think of what it is for?

The agent makes a report of all cars handled at his station daily. The conductor makes a report of all cars handled on his train, and he don't always think it of sufficient importance to follow instructions to make out and mail daily his reports; but these same reports, when they reach the car-record office, become of so great importance that their value is only recognized by those in the office.

All Depend on It.

There is no department of a railroad that is not dependent on the car-record office—from the president's office down to a yard clerk. When the president wants to know where his cars are and what they are earning, or how many cars belonging to other companies are on his line and what they are costing him, this information is compiled in the car-record office.

The general manager finds he needs cars and wants them located; he gets his information from the car-record office. The superintendent of transportation wants to know where a car or a number of cars are, so he can trace them, loaded or empty; he gets his data from the car-record office.

The general superintendent is required to give a detailed movement of certain cars, loaded or empty; he secures it from the car-record office; and in the same way the superintendent, general yardmasters, and agents, when they want any information that they cannot secure at their own offices or stations, apply to the car-record office.

Then the freight department—who furnishes them information as to delays to freight movements of cars in order to settle claims? The car-record office.

Then the auditor's office, in order to compile the earnings and expenses, secures a

monthly statement of mileage and *per diem* on home line and the same on home cars on other lines, so that the profits can be computed. The legal department calls on the car-record office for data in suits.

The mechanical department calls on the car-record office for movements of cars; and through the whole system every department knows there is only one place that certain information can be secured in order to complete some data that shows the workings of its own department.

With this importance, the recording of information permanently that involves millions of dollars yearly in railroads—how many railroads or their officials ever think of the great importance of the car-record office, or the scope of its usefulness?

Some of the Real Work.

In an experience of over twenty-five years in the car-service departments of four roads, I have only known of one where the car-record office was on its proper basis, and that was only because the head of the office was placed in a position where he could command the recognition that he warranted.

In the car-record office you find some of the brightest minds in any railroad—minds drilled to work out details and accurately show results. Are they known outside of the office? Very seldom.

Let any one interested go into any car-record office, follow up for a day or two the many different duties of the head of the office or his assistants, then look over what a recorder has to do and contend with, then delve into the knotty problems of the *per diem* clerks, not overlooking the trace-clerks, and he will wonder when and how it is all done in the time it is, and done so well! but he will have a better and a broader idea of where the real important work of a railroad is done.

THE CARD ON THE BEAM.

BY NEVIL G. HENSHAW.

**Cherry Turner Might Have Made the Journey
to the Pan Handle — But He Saw a Vision.**



AFTER he had read his letter, Cherry Turner, buster and nominal foreman of the Circle K, stepped down from the platform of the station at Kade.

He was under thirty, clear-eyed and regular-featured, with a face as innocent of beard as that of a new-born babe. He was dressed in the wide Stetson and flannel shirt of the puncher, and his trousers were protected by a pair of dull leather chaps—severely plain, without either fringe or buckle. At his hip there hung a .45, and about his neck was loosely knotted the handkerchief of cherry red from which he had derived his name.

The letter was scrawled in pencil upon a sheet torn from a tablet, and was dated from the Pan Handle. It ran:

DEAR CHERRY: Last week our buster got throwed and broke his leg so bad the doc says he won't never ride no more. Buck Jarvis, our foreman, has heard about you, and he says, if you're willing, you can have the job. He says he'll hold off a week, after which he'll get some one else. So, come a running. From your friend,

FRIO JONES.

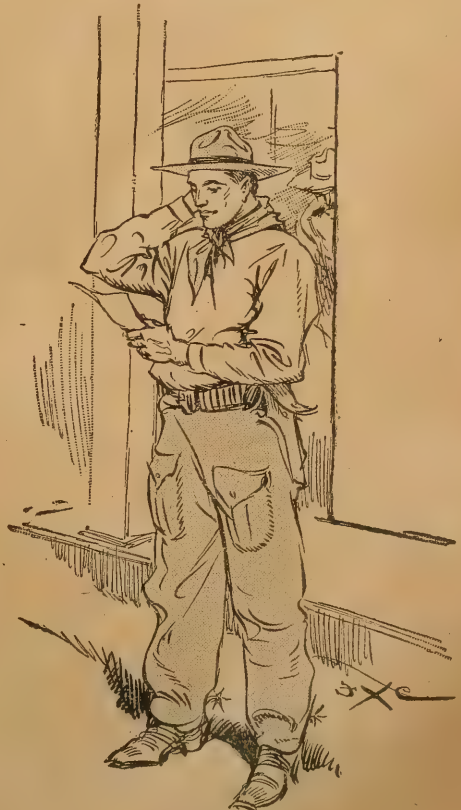
Cherry read the letter a second and a third time to make sure, and then thrust it into the pocket of his shirt with an exclamation of joyous amazement.

"Sho," said he. "I reckon that's goin' some."

Indeed it was, for of all the great outfits of the State the Bar Circle, under Buck Jarvis, was the most celebrated. To punch with it was in itself no small honor. To have the breaking of its mustangs was to occupy a position of glory.

As he strode toward his pony, Cherry's brain was in a whirl of pride and pleased anticipation. If he were willing he could have the job. If he were willing!

Why, there was not a puncher on the whole gulf range, or in all Texas, for that matter, who would not have given his very soul to possess it. And the fore-



CHERRY READ THE LETTER A SECOND AND A THIRD TIME TO MAKE SURE.

man would hold off for a week. Of that he was sure.

That there might be no chance of his changing his mind, Cherry decided that he would leave the following morning.

He had already begun a mental picture of his triumphal progress to the Pan Handle when a thought came to him that toppled his air-castles into an abyss of black despair. How was he to make the journey? There would be the price of his ticket and of shipping his pony, without which he would not have stirred.

Thrusting a hand into the pocket of his trousers, Cherry drew forth four silver dollars—the remnants of his pay spent in Beaumont the week before. Save for this amount, which he had prudently saved for tobacco and other essentials, he was penniless. His companions, he knew, were equally bankrupt.

For a moment, he thought of the proprietor of the Circle-K, and then dismissed the idea as useless. Surely Kade, his employer, would not furnish the means of ridding himself of so valuable a man.

Caught upon the horns of this dilemma, Cherry stood for a while motionless and thoughtful, the four coins still in his hand. He had abandoned all thought of an immediate return to the ranch, and the sight of the money, coupled with the heat of the sun, finally forced upon him the consciousness of a raging thirst. Returning the silver to his pocket, he picked up his pony's anchoring bridle from the ground.

"Sho," he said, "there ain't no use worryin' about somethin' you can't help. I'll take a drink and let her straighten herself out the best way she can."

With this philosophical reflection, he set forth toward the saloon across the way.

II.

LOPEZ's saloon, being of two stories, was the most imposing building at Kade. Cherry called for a cold bottle, a luxury that had become possible at Kade through the advent of the newly built G. and I. Strictly speaking, the term was a polite fiction, as the beer was cooled by the simple process of putting a piece of ice in the glass.

Having served his customer, Lopez re-

turned to the game of twenty-five-cent stud poker which he was playing at a table covered with a square of carpet.

Cherry drank his beer slowly and meditatively, pausing now and then to listen to the cool tinkle of the ice against the glass. When he had finished he went over to the card-table and began to watch the game.

Three men were playing: Lopez, a puncher from a neighboring ranch, and a small, crafty looking individual who had most of the chips before him.

Cherry knew both Lopez and the puncher well. The third man had not the pleasure of his acquaintance, although he was a citizen of Kade. His name was Dorsey, and he was heartily despised by the punchers, for it was said of him that he allowed himself to be supported by his wife.

At Cherry's approach, Lopez looked up from his hand.

"Come on in," he suggested.

"Sure," urged the puncher. "Three ain't no game."

Dorsey said nothing, being intent upon his cards.

After a rapid mental calculation, Cherry drew forth his three silver dollars and what was left of the fourth after paying for his cold bottle.

"All right," he said. "I'll stay in till this is gone."

He won from the start, and continued winning for the best part of an hour. Most of his chips came from Dorsey, who began to fall behind in the game.

Dorsey took his losses in a species of silent fury, betting wildly on each card in the hope of forcing his luck. Each time that his hand was bettered he would glare across the table at his opponent with a look of hate in his shifty eyes, and he kept continually repeating, "I never could have no luck in a four-handed game."

Finally, Cherry, grinning maliciously, replied, "Why don't you pull out, then, and make her three-handed again?"

But Dorsey shook his head.

"That's all right, young man," he growled. "I'll git you yet. Jus' you wait an' you'll see."

As he spoke, the opportunity for his vengeance arrived.

Lopez, who was dealing, turned up an

ace for Dorsey's second card. To Cherry he gave the queen of hearts. The others having nothing of account, turned down their hands leaving Dorsey and Cherry to fight out the pot between them.

Having the highest card, Dorsey bet off and was immediately raised by Cherry.

gave it a glance and then threw a chip to the center.

"I reckon I'll take one more whirl for luck," he said.

"Flush," commented Lopez, and dealt the fifth and final card.

In Dorsey's hand there now were show-



"WILL YOU LET THIS GO
AS A SET-OFF TO
THAT BET?"

After he had raised back again his opponent called, and the third card was dealt. This time Dorsey received a second ace and Cherry the jack of hearts. Again Dorsey bet and again his opponent called.

With the fourth card, Dorsey received another ace and Cherry the ten of hearts.

Lopez settled back in his chair, laying the deck upon the table in the manner of one who has finished with his deal.

"That'll be about all," remarked Dorsey confidently, as he bet again.

Cherry was of a different mind. Carefully lifting the edge of his first card, which lay face down upon the table, he

ing three aces and the eight of hearts. Cherry was possessed of the nine, the ten, the jack, and the queen of hearts.

Amid the silence that followed the completion of the hands, Dorsey's quick breathing could be heard distinctly. Cherry's face was inscrutable as he carefully arranged his cards. Lopez and the puncher leaned forward, carefully examining the hands.

After Dorsey had bet off and Cherry had raised, the chips rattled furiously until the stakes of both players were gone.

Then Dorsey leaned back in his chair, pale and excited. His brow was wet



HE NAILED THE CARD TO THE BEAM.

with perspiration, and there was a look of greed and cunning in his eyes.

"It sure is always my luck to git a real hand in a measly little game like this," he complained. "Now, if we was playin' for real money I'd show you some gamblin', young man."

Cherry, who was as calm and collected as he had been at the beginning of the game, met this challenge with a smile.

"And I reckon in that case you'd find me some willin' to learn," said he. "If you've got any notion of takin' off the limit, or any such play, you'll sure find me willin' to accommodate you."

A look of sneaking resolve flashed across Dorsey's face, and he straightened up in his chair as though seized with a sudden determination.

"Now, if this was to-morrer mornin'—" he began.

"And if it was?" interrupted Cherry.

"I'd jus' bet you fifty dollars on the hand."

A feeling of peace entered Cherry's soul, and he let out his breath sharply in a sigh of satisfaction. Fifty dollars, and there was almost half as much more in chips upon the table. With this amount he could journey in princely style toward the Pan Handle.

Rising abruptly he went out to his pony, uncinched his saddle, and carried it into the saloon.

"Here," he asked, as he cast it upon the floor, "will you let this go as a set-off to that bet of your'n?"

Dorsey examined the saddle carefully. It was a heavy affair, rich with embossing and silver, and it had cost its owner a cold two hundred in San Antone.

"All right," agreed Dorsey. "It's a go. Bring her in to-morrer mornin' before train time an' we'll turn up the hands."

"Why before train time?" asked Cherry. This was the same hour that he had decided on in accordance with his plans.

"'Cause I'm goin' to B'mont."

Lopez, as banker of the game, turned toward the table to gather up the hands.

"That's a good play, boys," said he. "I'll just lock these up in my drawer with the pot till you need 'em again."

"Sure," agreed Cherry, glancing toward the bar. Then he suddenly looked up at the heavy beam supporting the ceiling that ran above it, and he was struck with an idea.

"Hold on!" he cried. "I got some-thin' better'n that."

Behind the bar he found hammer and nails. Going to the table, he picked up his unexposed card and returned dragging a chair behind him.

The others watched in silent wonder as he mounted the chair and nailed the card to the beam, face inward, fastening it securely at the sides and corners so that it would be impossible for any one to examine it without tearing its edge.

"Look here," exploded Dorsey. "What the—"

"Wait," said Cherry, stepping down to the floor, "and I'll put you on."

"You see," he continued, addressing Lopez, "there ain't no use in clutterin' "

up your drawer with all them cards. If this here Dorsey party ain't got the other ace, all I got to have is a heart to beat him. If he has got it, then there ain't but one card I can turn up to help me, which is the king of hearts. As he's got the eight, I can't have no straight flush without it.

"Now, all you got to do is to turn up Dorsey's card and see what it is, and lock up the pot in your drawer. In the mornin', I'll pull down my card, which I put where it won't be in no one's way."

Despite its simplicity, this plan did not appeal very strongly to Dorsey's suspicious nature.

"I reckon it'll be all right," he said doubtfully.

The puncher, consumed with curiosity, joggled Dorsey's arm.

"Hurry up an' turn her over," he urged excitedly. "I sure am anxious to see what she is."

In a breathless silence the card was exposed, disclosing the single spot of another ace.

Cherry gazed at it calmly for a moment and then turned to pick up his saddle from the floor.

"That's what I figured," he said.

III.

As Cherry rode back to the Circle K, he was in a pleasant frame of mind. Through his disposal of the buried cards he had determined positively the contents of his opponent's hand; and these contents, notwithstanding their strength, did not disturb him. Instead, they rather reassured him and set his mind at rest.

Knowing well the reputation that Dorsey bore at Kade, both for cowardice and indecision, he had been afraid, that in the event of his having but three of the aces, he would fail to put in an appearance on the following morning. Now, however, there could be no doubt about the matter. Dorsey would surely be there.

As for the card on the beam, Cherry thought of it jubilantly, with a vision of the Pan Handle dancing before his eyes.

"I've got him locked. I've got him locked," he muttered again and again, repeating the words in time with the steady thumping of his pony's hoofs.

Suddenly, far up the road, a spot of red appeared, resolving itself, as Cherry drew nearer, into the figure of a little girl. She was a tiny, elf-like creature, with a thick mop of black hair that was drawn smoothly back into a pigtail and tied with a cotton string. She swung a faded sun-bonnet as she trudged along, digging her little feet sturdily into the soft sand of the road.

Cherry drew up before her as she stepped aside to let him pass.

"Hallo, sis," he called pleasantly. "Where you goin' this time of day?"

The child surveyed him thoughtfully with large black eyes.

"My name's M'line," she said finally, "an' I'm goin' to the ranch."

Cherry smiled in the vaguely affectionate manner of one who is both fond of and unaccustomed to children.

"All right, M'line," he said. "Want a lift?"

With a nod of assent, the child stepped forward and Cherry reached down a hand. He swung her onto his saddle, and she sat demurely before him, staring out between his pony's ears.

"And what you goin' to do at the ranch?" asked Cherry jocularly, after he was under way again. "Not goin' to roll me for my job, I hope?"

Turning her head, the child looked at him severely, as if to rebuke him for his levity.

"I'm after some shirts of Mister Kade's," she said. "Maw forgot 'em when she got the wash last time."

"So your maw washes for the old man, does she?" asked Cherry soberly, as if to atone for his former offense.

Once more M'line turned her head, this time to stare at him curiously.

"Sure she does. Didn't I jus' tell you so?"

Abashed and disconcerted by her steady gaze, Cherry abandoned the conversation abruptly, and rode for a while in silence, holding the child carefully with one arm.

"Crismus's comin' soon," observed M'line, following the trend of her thoughts.

Cherry looked as confused as if he had denied the assertion but a moment before.

"Sho, now; so it is," he said guiltily.

"And here I've done gone and plumb forgot it. What's Sandy Claus goin' to bring you this time, M'line?"

"They ain't no Sandy Claus."

Cherry agreed readily.

"Sure they ain't. Leastways, I reckon not in Texas."

"But I'm goin' ter git a present all right," continued M'line. "Guess what it is."

Cherry was silent for a moment, feigning deep thought.

"How 'bout a doll?" he ventured finally.

"How'd you know?"

"I reckon I must have guessed it."

The child smiled happily, holding out her arms in a fond, cradling gesture as if she held the subject of her thoughts.

"An' it's goin' ter be the beautifulest doll you ever seen," said she dreamily.

"It'll have yaller hair, an' chiny eyes, an' a sure 'nuff dress what you kin take off. I don't know what I'll name her, 'cause I ain't never had one before, but I reckon I'll call her M'line, after me. Paw's goin' ter bring her frum B'mont."

Cherry smiled approvingly.

"Your paw must be a mighty good man," he observed.

The child's eyes grew scornful.

"No, he ain't," she cried fiercely. "Paw don't never give me nothin'. It's maw. She's bin savin' up all year for Crismus, an' she's got a whole heap of money—most a million dollars, I reckon. She's goin' ter make paw buy her a real stove, an' a new dress, an' some of that there tin grub, an' a whole lot of things. She'd go herself an' take me if it wasn't for her work. Paw, he don't do nothin'."

The words poured forth in such a flood of bitterness that Cherry stared aghast, too overcome to reply. Tightening his arm about the child he gave her a short, sympathetic squeeze, and the two rode on in silence toward the Circle K.

When they reached the ranch-house, Cherry led his charge at once into the presence of Kade. After he had told her errand and she had departed with her bundle of shirts, he plunged at once into his own affairs with the lack of hesitation which he always employed in performing some disagreeable duty. Taking his letter from the pocket of his shirt, he handed it to his employer.

Kade read it slowly, while a little wrinkle of annoyance began to form between his brows. When he had finished, he returned it in the same silence with which it had been received.

"What outfit?" he asked finally.

"Bar Circle."

Kade gave a grunt of surprise and, stepping back a pace or two, surveyed Cherry carefully from head to foot as though he were taking his measure for the first time.

"You goin'?" he asked.

"Yes."

"When?"

"To-morrow mornin'."

Kade nodded thoughtfully.

"All right, Turner," he said. "I don't blame you. You've done well. Remember, if ever you want to come back your job'll be waitin' for you."

"Thanks. I'll remember."

The matter settled, Kade turned away. With his hand upon the door he suddenly paused.

"How you goin'?" he asked. "You're about even with what you've overdrawn."

A look almost sheepish came into Cherry's eyes, and he twisted the brim of his Stetson in nervous embarrassment.

"I got a little speculation over in town I reckon'll do," he said finally, in a low voice.

"Cattle?"

"No, poker. Stud."

The line that had come between Kade's brows faded quietly away and his face expanded in a smile.

"Is that so?" he said cheerfully.

"Well, I reckon you ain't gone—yet."

IV.

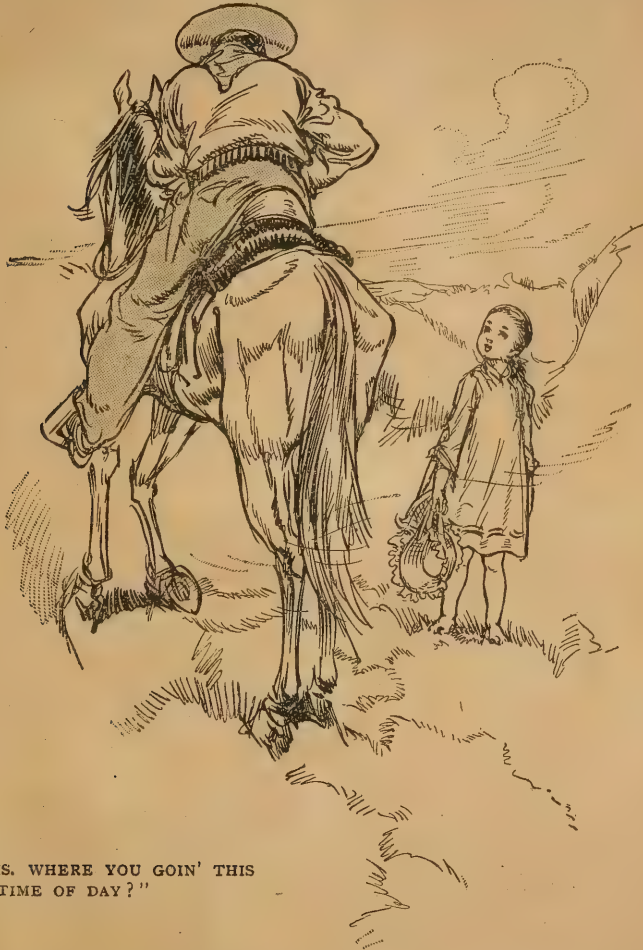
THE following morning a crowd gathered at Lopez's saloon that comprised the entire male population of Kade. It began arriving a good sixty minutes before train time, an hour that was definite, notwithstanding the irregularity of the G. and I., for Kade, being the first station on the return trip, the train was usually on time.

Dorsey arrived promptly at the half-hour, clothed in the full glory of his store-clothes and carrying a small valise of the variety known as "telescope." His coming was attended by so much curiosity

and excitement, that he immediately dropped his usual attitude of cringing servility and began to put on airs.

After he had taken the seat of honor at the poker-table and had counted out

Five minutes before train time Cherry arrived, dressed also in the garb of a traveler, and accompanied by a crowd of his companions who had ridden in for the double purpose of seeing him off and wit-



"HALLO, SIS. WHERE YOU GOIN' THIS TIME OF DAY?"

the fifty dollars in small bills and change, he leaned back in his chair with an attempt at importance.

"It don't look like the other gent's present enough to hurt none," he observed, running his eye over the crowd.

The puncher who had been in the game the day before stepped forward.

"Does you mean to say you think he ain't comin'?" he asked pointedly.

"Not at all. Not at all," said Dorsey, as he became more unassuming. "I simply mean he's late."

A subdued silence fell upon the crowd.

nessing the exposure of the mysterious card.

Notwithstanding their anxious questioning of the night before, Cherry had preserved a tantalizing silence, saying only that if they would come in with him in the morning they could see for themselves. The arrival of this delegation was treated with the deference carefully exacted by those of the Circle K.

Cherry entered, carrying his saddle over his shoulder. He deposited it on the floor, made a hasty inventory of the money on the table and turned to Dorsey.

"Sorry I'm late," he said, "but I had to see about my hoss. I'm goin' away, too."

Dorsey smiled magnanimously.

"That's all right," he replied. "It don't make no difference."

"You are ready?"

"Let her roll."

In the hush that followed this exchange of courtesies, Cherry seized a chair and planted it firmly beneath the beam. As he did so the sound of a whistle was borne faintly in upon the quiet air.

The crowd surged eagerly forward. Dorsey squirmed uneasily in his chair.

"Hurry up," he urged. "She's blowin' now."

With his hand on the card Cherry paused, disturbed by a sudden commotion at the back of the narrow room. As he waited, a small red figure wormed its way to the side of Dorsey's chair and the silence was broken by the sound of a high childish voice.

"Come on, paw," it pleaded. "You ain't goin' ter git left now?"

It was M'line.

A sudden, sickening sensation came over Cherry, and he dropped his hand as quickly as if the card had been a coal of living fire. So the money that he was about to win was not Dorsey's. It was his wife's—the pitiful amount which she had been saving, piece by piece, from her earnings that she might enjoy a few of the necessities of life at Christmas.

If he went to the Pan Handle now he would be no better than the despicable creature before him. He would be living upon a woman's money.

From outside came the rattle of the approaching train, and as Cherry gazed at M'line the vision of the Pan Handle seemed slowly to fade away. In its place came the vision of a doll—a beautiful doll with yellow hair, and eyes, and a sure enough dress and hat that would come off.

Slowly twisting the end of his gaudy

handkerchief, as was his habit in moments of perplexity, Cherry spoke to Dorsey. It was in simple, direct language.

Dorsey rose angrily and pushed the child aside.

"Git outer here," he commanded.

"I'm comin' right away."

Then he turned impatiently to the quiet figure upon the chair.

"Let's have her!" he cried peremptorily. "I ain't got all day."

Without a moment's hesitation, Cherry reached up and tore away the card. Then he crumpled it up in his hand and thrust it into a pocket of his trousers.

With an oath Dorsey sprang forward, feeling for his hip, only to recoil in terror at sight of the .45 which had suddenly appeared in Cherry's hand. The crowd surged back uneasily, leaving the two alone in the middle of the room.

"Look here!" gasped Dorsey, white and trembling. "You-all ain't goin' ter let me be helt up this-a-way?"

Then Cherry said, slowly and distinctly, still covering the cringing figure with his gun:

"It's all right, Dorsey. You win. I just don't want you to make no foolish play, that's all. Now you take the money and the saddle and hike for the train, or you'll get left. Likewise, I'd advise you to play your winnin's accordin' to the advice of them who staked you. If you don't, I'll know. You needn't wait for me. I reckon I ain't goin' to-day."

Amid the relief that followed this announcement the crowd surged back again, curious and disappointed, anxiously questioning about the mysterious card.

Cherry smiled sheepishly as he put up his gun and stepped down to the floor.

"Sho," he said, "you-all don't none of you want to see my little old four of spades. Next time I want to run a bluff I reckon I'll be more careful who I try it on."

Then he gritted his teeth and went silently out to face the humiliation of his barebacked return to the Circle K.



One Man's Wreck Record.

BY SAM HENRY.

THE TRUE STORY SERIES. It is generally conceded that the express messenger and the railway mail clerk are in the most dangerous situation of anybody on a train, in case of wreck. Mr. Henry's stories, perhaps, do not advance anything toward proving this, for he has lived to go through nearly twenty wrecks without receiving an injury that would permanently incapacitate him. It is hard to say whether this proves that he is very lucky, or very unlucky.

True, many men fail to survive even one wreck, but to have the misfortune to be laid out more or less seriously half a score of times and to be roughly handled half a score more in twenty-six years is a record that no one need desire to equal. And, after all this, our friend writes us that he is now impatiently waiting until his latest wounds are healed that he may once more go and throw a dice with luck on the railroad.

A Mail Clerk Who Has Averaged Almost One Wreck in Every Year of His Railroad Career, and Who Is Almost Ready To Go Out on the Main Line Again.

TRUE STORY, NUMBER FORTY-FIVE.



WERE you ever shut up in a box-like concern, flying through space at the rate of fifty to sixty miles an hour, working so fast that there is no time for thought of danger, and all at once heard the shrill, distressing whistle of the engine and the terrible grind of the emergency brakes? While the shrieking whistle was still resounding in your ears, have you heard the awful grinding of two steel

monsters coming together, it seemed each in attempt to outdo the other in destruction, and at the same time felt yourself being hurled through space and a huge tender telescope your car right where you landed?

I have been there, and words fail to describe the sensation which one experiences at such moments. Many, many thoughts crowd in upon one and flash by. Years, even, are relived in these few seconds.

Fourteen times I have been derailed,

EDITOR'S NOTE: All the stories published in this True Story Series have been carefully verified by application to officers or employees of the roads or companies concerned who are in a position to be acquainted with the facts. Contributors should give us the names of responsible persons to whom we may apply for such verification, in order that fruitless inquiries may be avoided. This condition does not imply any lack of confidence in the veracity of our contributors, but is imposed merely to give greater weight and authenticity to the stories.

Series began in the October, 1906, Railroad Man's Magazine. Single Copies, 10 cents.

and, I believe, six times I have been in the back shops for repair. Let me relate to you now the most startling incidents of the wrecks which I have gone through in the past twenty-six years.

In the early eighties I was on a road

I was very busy, but noticed that we were having an unusual amount of smoke.

Investigating, I found that my car was in flames.

Having no way of signaling, I went to the door and did my best in lung power, but could attract no attention. The fire was getting hot, and drove me to the farthest end of the car, where all hope of rescue left me.

I had visions of being roasted alive, and I began to lose consciousness. Dimly I noticed that we slowed down at a water-tank. Fortunately the rest of the train-crew had also discovered the fire.

The train stopped, the burning car was cut loose, run under the water-tank, and the water turned on; but she was too far gone to be saved. The engineer broke through an end of the car and pulled me out. I was overcome by heat and smoke, but after being revived and the burned places plastered up, I returned to my work.

About two months later we were going along at our usual gait, when I was startled by a succession of shrill whistles from our engine, which opened up to the last notch. The next instant I could feel that we were going somewhere where there were no rails.

When I landed and worked myself out, I opened the door and found the car flat upon the ground and off the right-of-way.

Some one was screaming: "Help! I'm killed. Help!"

Following the sound we found the fireman in the tender, from which the coal had emptied; the trucks from the mail and baggage cars were all twisted over him, but, strange to say, he had not received as much as a scratch.

The engine had turned almost around, throwing the engineer into a bank of sand about fifteen feet away. Like the fireman, he was not hurt enough to men-



THE ENGINEER BROKE THROUGH AN END OF THE CAR AND PULLED ME OUT.

in Texas which used coal-burners and the old-time bell-cord for passenger-trains, while the freight-engines burned wood, with no other attachments but the old link and pin for coupling.

On this occasion our passenger-engine broke down and we pressed a freight-engine into service, which under heavy pressure threw out great chunks of fire, as we soon had cause to know.

The through mail was in the end next to the engine; the transoms were open.

tion; in fact, no one on the train was severely injured.

This wreck, a fearful mix-up, resulted from an old cow steering a course down the track. In a cut right at the end was a cattle-guard. The engineer attempted to lift the cow before she could reach the guard, but he ran onto her just as she went into it.

Drowning Among the Mail.

Not more than a year after this wreck occurred, I was on another road. It had been raining very hard for several days and the night was as black as pitch.

We were going down a steep grade at a pretty lively clip. Right at the bottom was a small creek with the bridge gone. The engine's nose went down and she turned with her back against the opposite bank, making a pretty good somersault and throwing the engineer.

The car I was in leaped into space and fell into about four feet of water. My hand was jammed in a sliding-door, and all the mail fell against me so that I could not move. I felt the water creeping up higher and higher until it passed my waist, then I heard some one call: "Oh, laddie, are you dead?" I let out a yell that convinced me that I was not.

The old engineer broke in the door and rescued me. Help had not come any too soon, for the creek was coming up all the time. The fireman had jumped into the water and floated away from the wreck.

Just as the engineer and I reached a dry place he fainted. Three of his ribs were broken and he was a mass of bruises and cuts.

I carry a crooked thumb as the result of that experience. I thought the doctor would never get through taking splintered bones from it.

The engineer and I were the only ones hurt, and we were off duty a long time.

An Open Switch.

Before the split-switch days, and about six months after I had returned to work, we were going at a lively rate, being three hours late. At the beginning of a sharp curve was the far end of a siding and a fifteen-foot embankment of sand.

The switch had been left set for the siding by a freight, and as no switch-lights were used we hit this open switch at full speed. Into space we leaped. The engine rolled over several times, and it seemed to me that the car I was in would never stop.

I was buried under about four thousand pounds of mail and nearly smothered before I was dug out. A little water in the face, however, and a drink from a bottle that one of the passengers had, fixed me all right. They told it on the fireman that he landed almost off the right-of-way, and the first thing he did was to holler to the engineer to bring him his new suit of clothes which he had just bought that day. Some of the passengers were slightly hurt, but none of the train crew.

Head-On Collision.

I was not in this wreck, but arrived about two hours after to take charge of Uncle Sam's business. Through a misunderstanding of orders, a cattle-train tried to make a siding for a passenger-train. The freight crew of five men, all on the engine when the two trains met, was entirely wiped out.

The impact was so great that the mail-car was driven completely through the express-car and the tender telescoped them both.

When they found the mail clerk and express messenger, they were together, mixed up with some oysters.

The mail clerk must have passed through two car ends and a partition in his car. How he got there alive was beyond us all. All his wearing apparel, except his shoes, had been torn from him, but the only injury he received was a slight bruise on the arm.

It was rather a frosty night in November; the passengers crowded around and were trying to get some clothing on him. One thought to warm him up, so offered him some whisky.

"I don't drink," he said.

When the express messenger was unearthed his hair was all matted with oysters. A lady standing by shrieked loudly:

"The poor fellow's brains are oozing out, and he is still alive!"

The conductor, who had taken us out on the relief-train, ran a nail nearly through his foot while climbing over some débris, and was unable to wear a shoe. As day began to break some Texas steers were seen lying about, some dead, some injured, others very ready to dispute the territory with any-one coming their way.

This conductor wandered off some distance from the track, leaning upon a stick. One of the steers took offense at his intrusion and started for him. He dropped his stick, and the way he covered ground would have done justice to a Texas bronco. He made for an old dead tree that I am certain no ordinary country boy could have climbed, and shinning up it, there he had to remain until Mr. Longhorn chose to move on, as no one else there felt like disputing with the steer.

A Cyclone in the Offing.

Along in 1888 I was doing extra "stunts" for Uncle Sam in East Texas, on a narrow-gage. We burned wood, and whenever we came to a wood-pile, passengers and all would turn out to pitch wood for a rest.

One evening about sundown we were pitching wood, when I noticed a funnel-shaped cloud coming right toward us broadside.

I called the engineer's attention to it, asking him did he not think we had better try to get out into an opening about one mile away, as we were then in the midst of long pine-trees and would be in danger of their blowing across our coaches.

We all jumped aboard, and our engineer pulled out with full pressure. We had gone about one-half of a mile when the hurricane struck us and we began spilling all over the right-of-way. We had run into a very large tree.

After everything had settled down, the express messenger came through the creep-hole into my end. He embraced me and began to lament: "What will my wife do, with six orphaned children? Here I am killed and they are without support. Oh, my Heaven, this is awful! Have mercy on them."

I tried in every way to quiet him, and

finally succeeded. The surprise when he found that he did not have a scratch was almost as bad as the thought that he was dead. He told me that he actually believed he had been killed.

Afterward we started to jolly him about it, but soon stopped. A ghastly look would come over his face and he would say so earnestly:

"Boys, don't do that. If you only knew my suffering you would help me try to forget that wreck."

The engineer and fireman were scratched up somewhat and I had the last finger of my left hand broken.

Hit a Broken Rail.

About a year after I was back on a standard-gage. Every morning before our train left the terminal, "Dock," a young fellow working with me, would read aloud the most sugar-coated love-letters that I have ever heard. His girl's safety-valve was smashed all to pieces, and she had one continuous flow of sweet steam.

She was awfully anxious for him to quit the road. "Because, honey boy, I am so afraid you may get hurt," was the wind-up of every letter.

One day a train came in and reported a bad place five miles out on a very sharp curve. The operator overlooked serving us with a notice in regard to this before we pulled out.

We hit the curve; the engine passed over all right, but the rest of the train began to double up. Our engineer opened up and straightened it out.

The car we were in rolled over on the side, but we were not hurt, so I said to "Dock": "Let's get busy now and have everything ready to transfer to the other train which the conductor tells me they will make up and send out."

"Dock," paying no attention to me, began to take off his overalls, put on his best togs, turned over to me everything belonging to Uncle Sam, picked up his little grip and walked off, never so much as saying good-by.

Ten minutes later I looked out and saw him taking a short cut across the prairie toward the place where his girl lived, some twenty miles away. I never saw him again, but the next day I read

in the paper that he and his "honey," as he called her, had coupled up for life.

The Expired Accident Policy.

Just before leaving the terminal, an accident insurance-agent came to my car, inquired if I knew that my policy would

mix-ups, but nothing worth mentioning. One night we left our terminal forty-five minutes late with a crowded train of eight cars:

Our engineer we called "Old Hot Stuff," because of the fast work he got out of his engine. On this occasion our train was already on a very fast schedule,



THE MAIL CLERK MUST HAVE PASSED THROUGH TWO CAR ENDS
AND A PARTITION.

run out that night at twelve o'clock, and tried to persuade me to sign another then and there. I told him that I would call and renew it as soon as I returned.

Exactly forty minutes after my policy expired, a big Bohemian, a giant in strength, rolled up his mail-sacks tightly, and as we pulled in, delivered them into the car with such force that he broke my leg and caused me to be laid up for four months.

A Head-On Collision.

After this unfortunate incident, and up to 1904, I had been in several little

so when he told us that he was going to his regular meeting-point about eighty-five miles away, where we took the siding for the finest and heaviest train that ran across Texas, and that we had the right of track against all other trains, we knew that we were going to do some fast riding.

At our first stop, forty miles out, the despatcher gave us five minutes' help against the fine train, but we were to take the siding as usual. When a train takes the siding and is in the clear the head-light is covered.

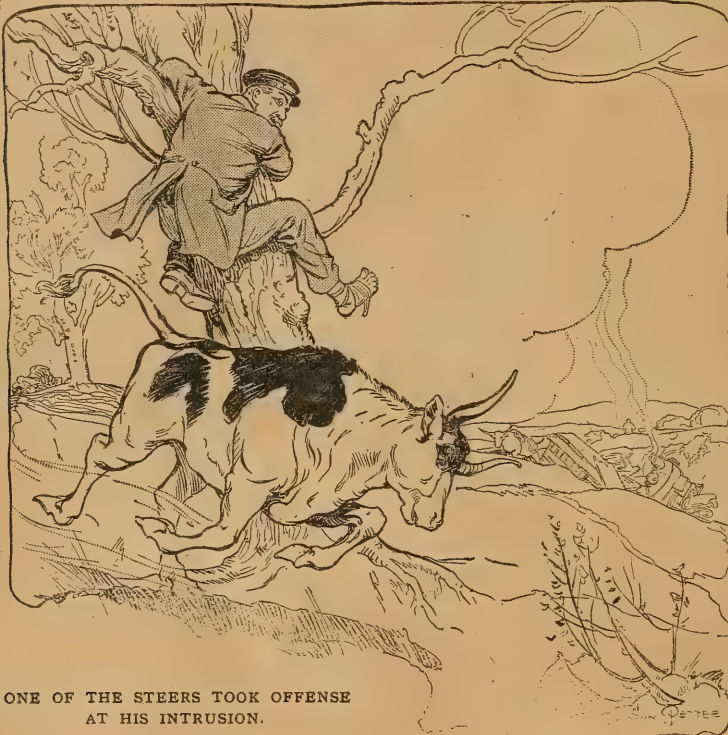
We were at the whistling-post one mile away. "Old Hot Stuff" signaled

for the station and at the same time shut off. Seeing the light of the other train disappear at that moment and also a light swinging alongside of the track, he naturally thought the fine train had taken the siding.

As a matter of fact this train had

landed on a pile of mail. We had an express-car ahead of us, and our car went through this until it met the tender.

The fact that puzzled every one was no one was hurt on our train, no one in the coaches on the front part of the fine



ONE OF THE STEERS TOOK OFFENSE
AT HIS INTRUSION.

stopped and her headlight flipped out, and the light which he had seen by the track had been made by the conductor walking alongside of his train toward the head-end, slightly swinging his lamp as he walked.

"Old Hot Stuff" gave a little *toot-toot*, and opened her wide. We were already going rather fast, but we seemed then to gain by leaps and bounds. The next instant our engine gave the most fearful shriek, the air went on to the emergency, and we crashed into the fine train head-on at a speed of over fifty miles an hour.

I never heard such hissing of escaping steam. The impact was so great that we knocked the other train of eleven cars back three car-lengths. I was hurled through space over twenty feet, and

train, but almost every one in the hind sleeper—one so badly that it is said he will be a cripple for life.

While my partner and I were taking stock of our bruises, an enterprising lawyer, who was a passenger, came to our car-door and tried to convince me that I was badly hurt. He was very persistent, and asked me to come out with him to see what a fearful wreck it was.

We started ahead, walking along the side track, but being blinded by coming out of the light we plunged into an open cattle-guard about four feet deep, and I came near biting my tongue off. Mr. Attorney saw that I was bleeding, and he went on at a terrible rate, stating that he would get me ten thousand dollars for my fearful injuries.

I could not stop his steam. As we ap-

proached a crowd of people he called out to them: "Here's one of the boys who was in the telescoped car. See the blood coming from his mouth. He is bleeding to death internally."

The crowd gathered about me, but I broke and ran, got back to my car, and shut the doors. Mr. Attorney did not get my case and I never attempted to collect one cent from the railroad company, but kept right on at work.

Whether the lawyer thought I was internally hurt or not I cannot say, though I believe he had a right to think so, because excitement at times nauseates me, as it did on this occasion, and I was holding myself as if hurt. His flow of talk was so fast, however, that I could not stop him to explain this.

Expressman's Desperate Dive.

Three years ago, as we were pulling out of our terminal on the finest train that crosses from the Atlantic to the Pacific, my partner asked me how late we were leaving, and I replied: "Eight minutes, but our schedule is very fast and we have Louie in the cab with one of the fastest engines on the road. We will not be behind very long."

We were soon straining, trying to make our work keep pace with the tattoo Louie had notched his engine to. I took the time as we passed the blind siding, and I could see that we were picking up right along.

As we approached our first telegraph-station, fourteen miles out, we were fairly skipping away. Louie called for a clear board, called again and again, then shut down to stop. About that time the operator heard his call and cleared. Instantly Louie opened up full.

Just after passing the small depot ballast began to fly and our car to sway and jump. I was thrown into some iron racks and my left arm was pinned among them. My partner caught me tightly about the waist, and as the car turned, first to one side and then to the other, the weight of both of us was hanging by that one arm.

After tearing along for about three hundred feet we hit a water-tank on heavy iron girders, tearing two of them away. The force of the collision turned

our car completely around and left it sitting flat upon the ground.

When I got loose it was found that the muscles in my back were strained and my arm badly wrenched.

The express messenger had a terrible experience—his car turned over in a deep lake, and in some way a large hole was knocked in the side. The trunks and express piled on and about him, pinning him down.

His foot happened to go through the hole into the water; he let the other through and found that he could pass his body down and under the car, so with a short dive and a few splashes he was on dry land. But such a sight!

He seemed to be bleeding all over and his back resembled a hacked beefsteak. We got him into our car, cut off what few remaining rags he had on and wrapped him in a blanket. We looked for the engine, but could not see it.

After a while, when Louie came up to the door with blood pouring from under his cap, we thought it was his ghost. He told us that the engine was fifty feet from the track, behind some willows, standing on her nose.

Several people had been killed in the negro coach and others badly hurt. The express-boy, Louie, the fireman, my partner, and myself were trying to take care of ourselves in the mail-car. While we were taking an inventory of our injuries, a large, fine-looking fellow stuck his head in the door and beheld a sight which he said resembled a slaughter-house. "Boys," he said, "if there is anything on earth I can do to relieve your sufferings speak quick."

I told him if we had a little whisky and some sheets, which he could get in the Pullman, I believed that we could manage until a relief-train reached us.

He went back into the Pullman, and at first they refused to let him have what he wished; but, I was told, he addressed his second request with such force, showing a face behind it that would not stand for hesitation, that it was but a few minutes until we had plenty of sheets and it seemed twenty bottles of about twenty different kinds of whisky. He demanded to know what it was all worth. "I won't let these boys sponge on any one, especially short guys like you."

The conductor, who had been detained rescuing the dead and wounded, came up, heard this remark, and assured him that it was all right; the railroad company would stand for nothing but the best for us boys, and the refusal to supply us with

He spit it out. "Sam, you old hoo-doo, turn her up, I want a drink!" The seriousness of the situation could not restrain a laugh from the others.

The passengers came down our way, and a man and his wife approached. He



DELIVERED THEM INTO MY CAR WITH SUCH FORCE THAT
HE BROKE MY LEG.

sheets had evidently been caused by excitement.

Our friend was certainly a prince of good fellows! He stayed with us, and saw that we had every attention possible.

He asked me if I were not a Texan, and I told him that he had given me the proper sign.

We never thought of giving the express-boy a drink, as he seemed too far gone, but he soon rolled up his eyes and asked to have his head raised a little, saying to me:

"Pass those bottles under my nose until I find the right one—that one, now turn it to my mouth." I barely tipped the bottle.

was pleading with her not to get excited. "My dear, do calm yourself, it is all right."

She was as cool as a refrigerator full of ice, but he was shaking as though he had the Louisiana "swamp ague," and was as white as a sheet. The cause of this wreck was never determined. I was in the "back shops" for repair about one month this time.

Within Ten Minutes of Safety.

At the time of writing this I am again in the "back shops." When the wreck which was responsible for this occurred, we were within ten minutes of our ter-

minal, clipping away at forty miles per hour. I had just remarked to one of my partners: "We will soon be home. Meet me in the park late this evening, and we'll have a talk over our pipes."

The words had scarcely left my lips when ballast began to fly, our car lunged, then pitched and rolled over. From the top of the car when standing on the track to the spot where it hit was thirty-feet.

I was holding to the rods on the side from which the car was turning. When it hit it jerked my hold loose, throwing me with great force nine feet, and landing me upon iron racks and ribs of the car. A wheel of the tender had burst.

When the doctor marked on a skeleton the places where I was injured there were some twenty-two contusions from my foot to my head on the right side, back bruised, and three lumps on the muscles of the leg and arm, which still show, knee wrenched and still swollen.

I have been in the "shops" for eight weeks now, with two fine mechanics trying to get me on the track again and an occasional consultation from even higher authority. After all that I have been through my nerves are as steady to-day

as they ever were, and if the doctors would tell me that it would not interfere with a permanent cure I should not mind the pain I at times still suffer, and would be right in the thick of the fight.

I am always happy when I can feel the wheels under me clipping along at fifty to sixty miles per hour, and hear our powerful steel horse as if breathing heavily in an attempt to win the race we are on. I am spurred on to fastest work when the engine settles down to a perfect tattoo and I feel the wheels under me clipping off a rhythmical accompaniment. I cannot leave the life, although I have had splendid offers to do so.

In conclusion, I would speak a word to those who are always ready to sue the railroad companies for damages. The men at the head of these companies are human. With all my mishaps I have never had to collect one cent from a railroad company through the courts, nor with the assistance of an attorney.

Whenever I am really hurt I go to them with a straightforward statement of the facts, and, in every case, receive a satisfactory and immediate settlement. Try it yourself next time and see.

PATENTS AND THEIR COST.

THE United States Patent Office issued last year 35,514 patents, reissued 168 patents, and registered 6,029 trade-marks, labels, and prints. During that time 22,328 patents expired. The expenses of the office for the year were \$1,712,303, and the receipts \$1,896,848. Last year's balance, together with that of former years, leaves to the credit of the office in the United States Treasury, \$6,890,726. Special attention is now being given to the classification of the 915,000 United States' patents, to the 2,000,000 foreign patents, and to the 85,000 volumes in the library. When this work is accomplished, it is expected that the expense of examining applications will be reduced by one-third, and the character of the work improved.

The present method of operating the Patent Office imposes an unnecessary tax upon inventors for which there is no excuse. With all the surplus income derived from patentees the office is entirely inadequate for the business and its inconvenience has been complained of for years, but Congress has always turned a deaf ear to complaints.

In the course of its progress through the office, up to the issue and mailing of a patent, an application passes through the hands of fifty-two persons.

An applicant pays \$15 to have his claim examined, and in case he is granted a patent, an additional fee of \$20 is required.

Attorneys charge from \$25 up, according to the work demanded by the cases, and as the applications number about 40,000 yearly, it will be seen that there is a good deal of money to be divided among the patent lawyers whose signs cover the faces of the buildings in the vicinity of the Patent Office.

An inventor is not required to employ an attorney, but probably ninety-nine out of a hundred do. In simple cases, where there is no interference with prior claims, an inventor can almost as well deal direct with the government, but in most cases the knowledge of the lawyer is valuable.

He can study other inventions in the same line, and knows how to make the claim broad enough to cover all that is new and valuable, and not so broad as to be rejected.


Letters of an Old Railroad Man and His Son.

BY HERMAN DA COSTA.

No. 7.—THERE ARE SEVERAL EARTHQUAKES.

Jim Finds That He Has "Made Good," So He Writes Pop the News,
and the Old Man Comes Back with Something to
Reduce a Swelled Dome.

JIM TO THE OLD MAN.

EAR DAD: Talk about things happening! In the last week so many earthquakes have hit the office that we don't pay any attention any more to such small things as wrecks. But I say "we" when I shouldn't. That's earthquake No. 1.

I'm not in the general manager's office any more, dad. You couldn't guess in five thousand years what's happened. I'll relieve your suspense. I'm now chief clerk to the superintendent of the Baltimore division.

How's that? Going some, I guess. Isn't it great? I sign all the official mail in his name, with a big "Britt" underneath it.

Honestly, when I first started in I hated to stop signing the letters. It looked so nice to be able to give out instructions yourself, and sign besides. Great? Well, I should say yes. It's *fine*! I've been living on the hilltops for the last two weeks.

Earthquake No 2—T. F., Tom Fitzgerald—your Tom Fitzgerald—has quit the B. and O. That's some of an earthquake, isn't it? He had been with the road so long that it seemed as if something was wrong with it. The papers had a

lot about it—mostly guesswork. The truth of the matter is this: The traffic vice-president and the general manager's office had been on the outs for a long while, because the v.-p.'s office wanted to run the general manager, who thought the operating end of the line was it.

Earthquake No. 3—I'm getting \$125 a month now. Last salary was \$90, by special arrangement—a clear increase of \$35 a month.

But let me explain how it all happened. You remember I told you about having trouble with Grand, T. F.'s new secretary? It seems Grand got sore when they took him out of the president's office and sent him to T. F.

He didn't pay much attention to his work, and got himself pretty well disliked because he tried to boss everybody. Then, when you sent me those wires, and I was on the point of quitting on account of Grand, he had a scrap with T. F., sassed him all over the place, and ended by resigning.

They took in another man from the president's office. That made me hopping mad, because I was entitled to it by right. The new man was a good one, though. To fill his place in the president's office they shifted around the men, leaving a position of assistant chief clerk open, and promoted the superintendent's chief clerk. That left his place open.

Series began in December, 1909. Railroad Man's Magazine. Single copies, 10 cents.

On the very day that I was going to tell Connolly I intended to quit, T. F. called me in the office. Charlie Galloway, the superintendent, was with him. I had always liked Galloway, and we knew each other pretty well.

"That is the man," said T. F. Then he turned to me:

"Mr. Galloway has got a place open in his office as chief clerk, Britt. Would you like to take it?"

"Would I?" I stammered out something. I don't know what it was, for I was knocked silly.

"Well," said T. F., "you report to him Monday."

I shook hands with T. F. twice, and with Galloway three or four times—I am not sure which—before I finally located the door. Then I walked out, at peace with the world.

I couldn't do much the rest of the day, and Connolly understood how I felt, for he kept on smiling all the time. He was the one who had suggested my name to T. F., I afterward learned, and Galloway said I would do, as all he wanted was some one who would take the detail work off his shoulders and keep things running smoothly.

I had a hard time of it the first week. Worked till ten at night, but it didn't count, for I had some responsibility of my own at last.

I don't know where T. F. has gone. I hear he is running a little coal road in West Virginia, but wherever he goes I'll bet you he'll take my best wishes along with him. Never have I met a finer man for handling people than he. Never have I met a more courteous and big-hearted man.

But those who know him love him too much to be able to sing his praises—they can just jump the fellow who slings mud at him—and let it go at that.

I like my new work immensely. There's lots of it, and close to the rails, too. I'm beginning to get virtuously indignant now when the other offices ask us to explain delays to passenger and fast freights, particularly when I know that the majority of them are written by some sap-headed general manager's clerk or some one in the traffic department.

Those fellows don't know the difference between a box car and a cattle-car,

and just want your explanation in order to file it away, regardless of whether it's good or bad.

I'm beginning to get the underground method of work, too; such a little thing, for instance, as losing correspondence that might be hard to answer satisfactorily. I've got a stenographer of my own. Don't laugh.

My one trouble is with the boys in the office. Naturally they didn't like to see an outsider put over their heads, and they don't object to showing their dislike a little bit.

I am trying to be patient, though, and hope the friction will wear away. If you've got any of that celebrated medicinal advice of yours handy—in capsule form—on handling this bunch, send it along.

Mr. Galloway is nice with me, and his secretary has put me straight once or twice, although I wouldn't admit it to him, for he would promptly tell the others should they ever begin criticizing me. You know how easy it is for some one to volunteer stuff like that when everybody is knocking.

But the real thing is that I've made good. You can't begin to know how good it feels to say that.

Be sure to tell mother all about it. If I write any more, I'll bust. Affectionately,
JIM.

THE OLD MAN TO JIM.

DEAR JIM: Of course I'm glad. I'm gladder than you are. When I told your mother that you had got there, she insisted on giving a party to which all of the town was invited, and nothing was talked about but "my boy Jim." But she's writing you a twenty-page letter to-night, so I don't need say any more for her.

Barring death, and about three thousand other things, you ought to have a pretty straight road before you now. The best way to get at the hearts of your bosses, Jim, is to save the road money. They always promote a money-saver.

The men up ahead have a sincere admiration for the man who can do things better at less cost. They watch the operating expenses like a hawk. Improve your department, and you'll never lack a

pull, for when you get down to the meat of it, pull doesn't amount to a bag of candy unless it's got merit behind it.

Good executive ability—the ability to run an office well, and keep the men working just for the love of it—that, and keeping expenses down, will make a man head of the road in no time. And a man with executive ability has got to have tact and diplomacy.

While we're talking about diplomacy, let me tell you about Henry Powers. Hen, when I first met him, was office-boy in the superintendent's office. Hen was a red-headed, freckle-faced kid of about fourteen, with a grin that used to spread from the end of one ear to the other; and on special occasions the corners used to meet at the back of his head.

No matter how much the whole office felt like jumping in the river, Henry was always there with his little smile. It was born of good digestion and a miraculous appetite. If you spoke to him it grew a little, and if you cussed him it became a yard wide.

You couldn't persuade him you meant it. He'd try to convince you you were joking; and if you insisted you weren't, he'd make you believe you were mistaken. And the way he could make the other office-boys hustle around was a caution.

He was a confidential kid, too; lean over your desk and tell you things with an air of great secrecy, and call you mister just when you were longing for somebody with appreciation enough to stick a title before your name instead of saying: "Here, you!"

Ask him to go off on an errand just when he came off a hard trip, and his "Yes, sir," would come back at you as cheerfully as if it was a fishing excursion, and you were paying for the tickets, and bought the bait.

But you couldn't impose on him. No, siree! I remember one day I came in the office when Seebald, the stenographer, was trying to make him go out and buy some cigarettes. When I say cigarettes, you'll know Seebald.

I came in the door just when Hen was using his brand of diplomacy. Seebald was blue in the face, and shaking an arm, that looked like a pipe-stem, under Hen's nose.

"No, sir," grinned Hen, "I ain't going

to get no cigarettes. I ain't got time. But I tell you what I'll do—I'll ask the boss to let me get 'em for you."

Before Seebald could stop him Hen was inside the superintendent's office, explaining that the stenographer wanted him to buy some cigarettes, and would Mr. Martin mind letting him go?

He wasn't very busy, as he only had about two hundred letters to fix up for mailing and about forty to deliver around the building, besides sorting the correspondence and attending to his regular work.

Before he was half-way through, Martin was standing in the outside office reading the law to Seebald, while Hen was standing in the doorway, with an innocent expression on his face, as if he couldn't see why his friend Seebald should get called down. And Hen took particular pains to explain to Seebald that it was an outrage, and he'd get 'em anyhow, if he said so. The kid was young, and used science against brute strength.

Hen speedily got popular on account of his cheerfulness. He was naturally bright, too, and picked up a lot of office-work. One day, the general superintendent telephoned down to Martin about something that had gone wrong; I think it was an important letter sent astray.

Martin and the chief clerk put Hen over the coals. Finally they had him pinned down, good and hard. At every harsh question they put he would answer and give one of those cordial grins—and under the influence of those grins, things didn't look half so serious as when they first started.

Martin had to relieve his feelings somehow, though; so he began to cuss Hen, doing him up artistically. And Hen just stood there, taking it all in, and smiling back at Martin for all the world as if he was saying, in the most respectful kind of a way:

"That's all right, Mr. Martin; you're too fine a man to mean all that. I know you better than that, no matter what you say," until Martin gave in.

He turned to his chief clerk and heaved a sigh.

"It's useless to talk to that little runt," he said. "Everything I say, he just stands there and grins as if he likes it." He wheeled suddenly on Henry.

"Get out of here!" he bellowed. And Henry got.

Outside, Henry was explaining to his admirers.

"Didn't he fire you?" he was asked.

"Fire me!" grinned Henry derisively. "Not on your life! He's going to raise my salary five dollars."

Do you know where that red-head is now? Your remark about T. F. losing out in the fight with the traffic vice-president brought it all back to me. That kid worked his way up in the road, and to-day is now one of the smoothest and most diplomatic traffic men in the United States.

He's the same traffic vice-president with whom T. F. had the fight. There isn't a man in traffic circles in the country who doesn't know him; for he's as popular there and in the big business world as T. F. is in the operating department. You can tell him a mile off by his smile.

The way to handle men, Jim, is to leave them alone. Every man alive has his own little particular way of looking at his work. Men who fill big positions have got to be different to the ordinary man. They must forget that they ever had feelings. They mustn't get excited, and they can't afford to lose their tem-

pers. The men working for the boss look on him as different.

In a well-organized business, the boss is really a kind of father, with his employees as the family. They look to him in time of trouble, and if he's a big man, they soon lean on him.

When he must call a man down, he does it quickly, and forgets about it.

The man who realizes that he must forget his own feelings, no matter how low down on the ladder he is, will hold the boss's job some day. He's just the kind of a man the world wants to run its business. He doesn't need stand on the house-top and yell to the fellow on the street that he is the real goods. His actions will yell for him louder, and carry farther than ever he can.

Forget yourself. Say that over a dozen times a day, Jim, and you'll be the man for the place.

It's a wise man who knows he isn't out of short trousers yet.

It's one eternal fight to keep the other kids from making you forget you're a kid, too.

Face the music, smile, and be honest; if you do those things, you'll have the satisfaction of knowing you've won.

Your affectionate. FATHER.

(The End.)

NOVEL SCHEME ON THE ERIE.

THE Erie Railroad has given over one car in some of its suburban trains to the commuters, who object to the steam heat and stuffy atmosphere of the regular cars. The cars carry signs reading, "Fresh Air," and are started out from the terminals with the doors, ventilators, and alternate side windows wide open. Any person riding in these cars is privileged to close the window next to him, but has no right to insist

on the closure of other ventilation openings. The will of the majority of those who ride in the cars will control the turning on of the steam-heat, which may be wanted in very cold weather. Those who find the cars too cold can always move to other cars in the trains.

This is a novel, but sensible, way of solving the vexatious problem of heating and ventilating cars in winter.

UPSETTING OLD BAGGAGE THEORY.

A CASE of interest to railroads as well as travelers, has been decided in Philadelphia, the jury rendering a verdict against the Pennsylvania for the full value of baggage lost in a 10-cent package-room at one of its stations in New York. The company contended the package-rooms were maintained for the accommodation of passengers

only, and the small cost charged did not impose upon it any obligation beyond ten dollars.

The judge said the company had assumed the safe-keeping of the baggage, and he therefore permitted the case to go to the jury, which rendered a verdict of \$254.25. The company will appeal.

MOVING THE "MOVERS."

BY J. L. JAMES.

The Trials and Tribulations Encountered While Waiting for "The Great Unlimited."

I WAS sitting in the stuffy little depot of a prairie town. A "norther" was prowling around outside, and whistling mournfully about the eaves.

A lone drummer, two or three farmers, and myself, were waiting for the local going west, a swaying combination of one rickety passenger-coach, any number of freight-cars, and a sputtering little hog-back engine.

The train made daily trips, but on its return each afternoon, or midnight, became No. 3 instead of No. 1—its west-bound cognomen.

The road boasted of another train, subject, also, to daily change of numbers—No. 2 and No. 4—a real passenger-train, due late in the afternoon, and likely to arrive at any time thereafter.

On this particular morning, No. 1, known by the boys as "The Great Unlimited," was also late. No one was surprised. The drummer, who had worked the whole town since breakfast, and had then defeated all the local checker champions, was trying to kill time by dozing in a corner, or slapping at some stray fly.

I had kept awake watching his antics for a while, then discovered a dirt-dauber's nest on a horseshoe over a door, and for an hour or so divided time between wondering how that individual discovered that a horseshoe brought good luck, and listening to the progress of a domino game in the office, between the agent and the only drayman in town.

Suddenly the outer door opened with a crash. A man, a woman, and several children entered, showing by all signs in sight or hearing that they were emigrants, or, as locally termed, "movers."

The woman was carrying, in one hand, an old umbrella, a frying-pan, and a bird-cage with a half-grown rabbit in it. In the other hand she had a hat-box. Under one arm was a square, box-like old clock, and from her wrist hung a bag that bulged with a conglomeration of articles.

Behind the woman came a girl of, perhaps, eight years, carrying another clock of different shape, and an anxious-looking gray cat that seemed to have its attention divided between fear of falling and the desire to eat the rabbit.

The man carried nothing but a big, fat, bawling baby of two years, wrapped up in a red and green blanket. Other children followed, some carrying various articles, some crying, others eating peanuts.

The children all came into the depot readily enough, but seemed to have no further idea what was expected of them, and stood gazing at the lurid posters, maps, and excursion notices, or stumbled over seats and suit-cases.

"Now, set down!" commanded the mother, "and don't stand around gapin' like a lot o' eeglots!"

The youthful "movers" broke ranks, some to clamber into seats, others to go on a tour of inspection of everything within range. The mother pushed one clock under a seat, found a lamp-bracket for the bird-cage, and sat down with the baby and the other clock in her lap, having deposited the bag on the seat beside her.

Then the clock under the seat began to strike lustily. As it finished the thirty-seventh stroke, the alarm in the clock in her lap went off with such a bang that the baby took fright, and fell off its

mother's lap onto the floor with fresh yells of terror.

I stole a look over the top of my magazine, behind which I had been trying to screen myself, and vainly tried to catch the drummer's eye, but he was gazing out of the window, pinching himself to keep from disturbing the peace.

The baby, in falling, landed somewhere near the middle of the catch-all bag, and the mother made a plunge for it as if the child were on fire. Then the clock in her lap began striking some unknown hour.

"Now, Elviry," she shrieked, "there you've went and done it! I bet you broke yo' paw's mushtash-cup 'at he got at the Christmas tree last year."

The proud owner of the mustache-cup was standing by the ticket-window, vaguely wondering when the "depot-man" would catch up with his business sufficiently to sell a ticket. But that person was just then in the act of defeating the drayman at dominoes.

Rather than lose the victory, he would have played on obliviously till No. 1 came over the hill, had not affairs in the waiting-room taken another turn.

The guardian of the household effects had just rearranged the baby, the bag, and the clock, when her wandering gaze missed her first-born, a shock-headed boy who had not remained in the waiting-room long after the arrival of the family.

The baby was at once deposited upon the floor, where it bellowed wrathfully. The panic-stricken woman sped for the door, jerked it open and set up a shrill:

"Bus-s-ter! *You* B-u-s-t-e-r! B-u-s-t-e-r-r-r!" winding up with an ear-splitting whoop.

The wind made straight in at the door for the papers on the agent's neglected desk. The freight-bills flew over the office and disturbed the checker game long enough for the agent to interfere with the remark: "Here, I'll bust you!"

Then, as he leaned out of the ticket-window far enough to see that the offender was a woman, his chivalry got the better of him, and he toned down a bit, saying: "Madam, if you don't shut that door, I won't have a paper in the house, and they will be suing me for scaring all the horses out of town or chokin' up the Brazos River."

The woman yelled on obliviously for some time, then, muttering, "I bet he gets left by that train," closed the door, and started up the platform in search of the prodigal.

Things were getting so interesting that the drummer passed me the wink and slunk out of the other door. I followed.

"You go one way," said he, "and I'll go the other."

We wanted to see the old hen when she lit, and we did. Out at the farther end of the platform, we turned opposite corners just as she sailed down on her runaway.

He had a cotton-hoe by the handle, and to its neck, with a card two yards long, he had tied a flop-eared, half-breed dog. He was sitting on the platform holding the hoe-handle and dog in fishing style, as if he had a bite.

"Buster!" yelled the approaching assailant. "Wha' chu mean runnin' off an' the train about to start?"

"Why, maw," drawled the boy, "the train ain't come yet, and paw made me leave old Tige out here, while we went to the depot, an' he's cold."

"Well, I guess you'll warm him up holdin' him here by the handle! I'll kill that fool dog!" she stormed, but aimed a blow at the boy's head. He dodged readily and still clung to the hoe-handle, while the whining dog huddled against the platform with his tail safely between his legs.

Just then the hog-back squealed in the distance, and the warlike mother set off to gather her belongings preparatory to boarding the train.

She took down the bird-cage, got an arm about one clock, seized the umbrella and bag again, gave vociferous commands to the children to "git them things and git on that train," and marshaled them in a long line by the track while No. 1 came clattering in.

Most of the passengers were in no hurry to get aboard, as No. 1 usually stopped an hour or two—long enough for a drummer to "work" the town and catch the same train for the next.

But to-day, those aboard had been there so long they were anxious to get off, and soon the family phalanx was broken up by the crowd. After the drum-

mer and I had secured seats, we looked out and saw the woman, with the clock and caged rabbit, racing up and down the platform, calling at every jump: "Jerri-mi-a-aah-hh!"

As this was a new name, we soon figured that the husband had escaped while she had been looking for the missing Buster. The drayman emerged, and out of pure good-will began to call Jeremiah also. Several boys took up the cry, till the town rang with the chorus of shouts for that namesake of the weeping prophet.

Finally, the woman collected her children, clocks, rabbit, etc., in a knot near the train, and gave out in stentorian tones that she would "stay right there till the cows or Jerry came home."

"I'm betting on the cows in that race," remarked the drummer, and then he settled for an hour's doze before the train started.

After a while we were all awakened by a jerk of the train and the renewed cries of the moving woman, who seemed to think the cows were about to win.

Jeremiah had not yet appeared, and the engine had finished its switching work and backed up to get the train for another start.

Several of the children added to the hubbub with their frantic yells for father, and just as the bell began ringing for the departure of No. 1, the missing hero came around the corner of the depot scowling furiously at the uproarious family.

"Can't a feller git away long enough to have a smoke in peace?" he growled, referring to the two-for-a-nickel cigar protruding from his overgrown beard. He went into the depot again for the tickets, but the snorting little hog-back began grunting off down the track, leaving the moving-woman the picture of wrath and despair as she clung to her clocks and rabbit, groaning:

"I knowed it! I knowed it! I knowed he'd git left!"

A new disturbance at the rear of the train now attracted our attention. On investigation, we found Buster, the dog and the hoe, mixed up in a row with the brakeman. The boy and the dog had slipped on to the rear of the train, while others of the family were calling Jerry.

"I tell you, bub," declared the brakeman, "you can't bring that pup on this car!"

"Well, he's on here, ain't he?" retorted Buster.

"Well, take him to the baggage-car and express him through! He can't stay on this car! Where's your ticket?"

"Paw's got it, I reckon."

"Where is he? Hunt him up, quick!"

The boy tried to leave the dog in the corner by the stove while he went to show the brakeman the holder of the ticket, but the trick failed. The dog followed, and, when assaulted by the brakeman, started howling down the aisle with the hoe catching in the seats and hitting the passengers.

Boy and brakeman tried to stop the fugitive. They caught him at the door just as a passenger who had been out on the platform started to enter and had dodged back in time to let the dog out. The hoe caught in the door.

Just then the train lurched into a stop at the water-tank. Dog, boy, brakeman, and passenger finally untangled themselves, and Buster, still holding to the hoe-handle, remarked, "I guess my paw ain't on here."

"Well, I guess not," snorted the brakeman, rubbing his shins, "and, bub, next time you try to take a ride, bring your dad along, instead of that pup, and get a ticket, too."

"Huh," replied Buster, as he alighted with his dog and took up his march back to town, "I beat my paw this time. Must think I never have moved before!"



HELP FOR MEN WHO HELP THEMSELVES—NUMBER 32.

(The Rogers Group. No. 3.)

THE ROUNDHOUSE FOREMAN.

BY ROBERT H. ROGERS.

WHEN one reviews the work of the roundhouse foreman, its minute details, and its broad responsibilities, it seems impossible that one human being can attend to all these multifarious matters and retain his reason. The roundhouse foreman is the man who does not figure heroically in popular fiction. He is not supposed to have an eagle eye or any of the equipments of a hero, but if his eye makes a small mistake in estimating the extent of repairs necessary, the end may well be appalling disaster.

There is no instance where a roundhouse foreman has made such a mistake, and there are hundreds of opportunities almost every day. Mr. Rogers shows that the large responsibilities that some of our great chiefs of motive power are called upon to bear have been prepared for in the hardest school of training that lies in the path of any railroad position.

**What the Begrimed and Worried-Looking Man About the Roundhouse
Is, the Load He Carries, and the Reward
He Hopes to Gain.**



DISREGARDING, for the sake of this illustration, and with no disrespect, the large administrative ability properly conceded to every division superintendent, the

all-important duties of the division engineer, and the undoubted skill and energy of the far-seeing master mechanic—do you know that there still remains obscured by all these a lesser official, unidentified with romance and removed from the spotlight of popular appreciation, about whom, nevertheless, revolves the actual

movement of each division on a great railroad?

Does it not seem incompatible, in the methods of up-to-date railroading, that if this one-hundred-dollar boss should suddenly drop out, an organization supposedly competent to cope with any emergency would, for a time at least, become hopelessly complicated? If these statements are not too broad, and they are in reality conservative, he deserves a place in certainly not the least interesting chapter in the story of the motive-power department.

Began in the April Railroad Man's Magazine. Single copies, 10 cents.

It was concerning the importance to the supervision of this particular member that E. T. White, mechanical superintendent of the Baltimore and Ohio, once remarked to the writer:

"It is easier for me to select seven good men for the position of master mechanic, whom I know will make good, than to land one good roundhouse foreman."

Incumbents of these big jobs do not speak inadvisedly, and not in this instance at all events, because White has made, or named, many roundhouse foremen, and many master mechanics. Probably he has been the good Samaritan to more aspiring young men than any other man in high official position, and he ought to know.

There is no grade in railroad service calling for more detail knowledge of a locomotive, and how and when to apply it, than a roundhouse foreman must possess. Under all circumstances he has to be patient, cheerful, self-reliant, optimistic, and resourceful, to have even a remote chance of success; and, above all, his shoulders must be broad enough to carry everybody's burdens, whether representatives of the shop or road.

His job is the buffer between the shopmen and the master mechanic, and between the engineers and firemen and the road foreman of engines. He is master of the situation, in a way; and, in another way, it masters him, as, in the large terminal, the wealth of detail which confronts him is staggering.

The Man of Details.

The superintendent, division engineer, and master mechanic are charged with bringing about broad results on their division. They are largely removed from vexatious and wearisome small matters, but the roundhouse foreman stands alone on the firing-line, next to the very heart of things.

It is to him that they flock when the turntable breaks down; when the last of the inch-nuts are disbursed by the storekeeper, or when a headlight chimney is wanted for engine 1075; and, while these problems are being intuitively disposed of, the shop water-line will give out, with two or three locomotives attached to it, whose boilers need to be washed before quitting time. There is also a probability

that the engine despatcher will appear, and breathlessly demand another engine to replace one which is in trouble at the depot, and which its engineer has impolitely and emphatically "turned in" over the phone.

These are merely incidents of the daily routine. The writer has confronted them all, in the short space of fifteen minutes, and with the cheering intimation, to boot, that the coal-shed was on fire. A fellow comes to look for the unexpected in this stirring job; to enjoy it, almost, and he is out of place if he doesn't have a prompt remedy up his sleeve.

It is the conceded receiving end for trouble, and George Reynolds, for a long time boss of the Connellsville roundhouse, put it truthfully when he said:

"Anybody I see walking toward me, I don't care who it is—fireman, engineer, boilermaker, despatcher, call-boy, or the 'old man'—I know it is trouble coming, in some form or other."

Faults Must be Reported.

It is not the fault of the conscientious machinist if his emery becomes used up in the middle of a job, and no grit can be scraped together with which to finish grinding the steam-pipe joints; nor is it against the fireman if the harassed tool-boy can't find a scoop for him. Their idea, and a proper one, too, is to report these things as soon as they happen, thus relieving their own responsibility, because, if delay should result therefrom to job or train, the first question asked by the master mechanic would be: "Did you say anything to anybody about this?"

There is no one to say it to but the foreman, so they wait complacently and, it must be said, often with a cheerful grin, while he indicates a way out. The foreman may dig for one of his own dimes, and chase an apprentice to a hardware-store down the street for ten cents' worth of emery, and he may tell the fireman to take a shovel from some other engine in the house which is going to lay over for a while. At all events, he will do something, and the situation will clear.

The old man won't know anything about these trivialities, either. No foreman, especially one of the old school, would ever be guilty of continually run-

ning to the master mechanic with his troubles. If he did start to run, the master mechanic would view it unkindly.

He had to dig his own way out, when in a similar job; and, unless animated on exceptional lines, he would not care to run the roundhouse as well as the various personal duties pertaining to his position, which in itself is far from being a sine-cure.

The writer was roundhouse foreman under J. B. Michael, at Knoxville, Tennessee, on the Southern Railway, for about a year, and only three times in twelve months he climbed the steps of the master mechanic's office, unless he had been sent for. It is much more pleasant all around to handle the job without interference, and "J. B. M.," with his long experience, was sufficiently broad gage to concede this—provided, of course, that the looked-for results were forthcoming.

Too Small for His Job.

Other reminiscences, however, are not so pleasantly recalled—one, in particular, where the master mechanic lived in the roundhouse. He was an extreme enthusiast, but to no purpose.

He threw away valuable time, in pushing the turntable, throwing switches in the shop-yard, and even in hoeing ash-pans on the pit, without mentioning the excitement occasioned in the force through enforced proximity with such authority, when he might have been much more profitably employed for the benefit of all concerned by being up-stairs writing his letters or devising ways and means.

He lacked the implicit confidence in his foremen, and they in him, which is the keystone of efficient shop organization. He was the self-tortured victim of countless fears; afraid that the engines would not get over town in time for their trains; afraid that the jobs reported by the engineers were slighted in the roundhouse by the foreman; that the engineers were carrying tales to the superintendent, and of numerous other groundless bug-bears detrimental to his peace of mind.

This is far, however, from being a general condition—the reverse, rather. If the master mechanic does not of his own volition give his foreman latitude and support, he may be quietly reminded by

the progressive head of his department that the policy is to have it so. This policy is to put the job squarely up to the incumbent, and to let him alone; waiving, of course, the general supervision which through the master mechanic must be extended over all departments. If he fails to make good, the painful necessity arises to get another foreman, but the change can be made without the recriminations which might follow divided responsibility.

The Added Care.

The work of a roundhouse foreman has little in keeping with that of a machinist, although from this latter grade all such foremen are produced. The principal difference is that before promotion he simply worked and knocked off by the whistle, chalked his two dollars and a half or three and a half, as the case might be, on the proper side of the ledger, and forgot his job until the next morning, but when he assumed his present burden this enviable mental condition sped on its way forevermore.

The first day of promotion brings responsibility which will never cease to be his portion. Through this, and all the succeeding grades, he will work mentally, if not physically, day and night, Sundays and holidays, until the company fails to remit his monthly pay-check.

The problem presented in taking care of maybe one hundred locomotives in twenty-four hours may be truly defined as tremendous; and this number, while large, is still far from the total which some terminals handle in that time. The Boston roundhouse of the New York, New Haven and Hartford has, or did have when the writer was master mechanic there, upward of two hundred and twenty-five passenger engines daily over its ash-pits.

Cumberland, Maryland, on the Baltimore and Ohio, before relief was afforded by diverting a percentage of the number to Keyser, West Virginia, had one hundred and twenty-five, representing the heaviest freight power in the country at that time; and the joint roundhouse, maintained by the Chicago and Western Indiana, at Fifty-First Street, Chicago, takes care of the passenger loco-

motives of five roads entering the Dearborn Street Station.

In connection with every one of these engines there is certain daily routine work, entirely independent of what the engineer or shop inspector may report. The fire must be thoroughly cleaned on arrival, or knocked out, if the flues or fire-box display any leaks; the ash-pan hoppers must be emptied, the sand-box replenished, the tender-tank filled with water, and the engine coaled.

The Engine's Toilet.

After receiving this attention on the pit the locomotive enters the roundhouse, where the tender-boxes are oiled, and the engine truck-boxes packed or resaturated—"sponged up," they term it. An inspection is also made of the smoke-box interior, particularly the spark-arrester, to ascertain if the netting is clean, and without holes, which might result in fires along the road from large sparks, and all details of the running gear and the air-brake are looked over by experienced men for loose parts or incipient defects.

Before being O.K.'d on the engine dispatchers board as ready, the flues must be cleaned, either by an augur or blown by compressed air, and both engine and tender thoroughly wiped, for the sake of appearance and to prevent possible injury to the bearings through contact with an accumulation of dirt and grit.

Last but not least, the tool equipment carried by the locomotive is carefully checked to see that nothing has been lost by the crew on the trip last completed. The headlight and signal-lamps are cleaned and refilled, and the allotted supply of oil and waste placed in the proper boxes.

All of this work, being merely routine procedure, is attended to by the same men every day, who work without direct instruction from the foreman, and from whom only supervision is required to know that none of it is slighted. The following may be regarded as representative of the rates per hour, in cents, which these miscellaneous roundhouse men receive.

Ash-pit foreman, 25c.; fire-cleaners, 15c.; ash-pit cleaners, 15c.; hostler, 25c.—and if engineer hostler, road rates per

day; turntable man, 18c.; box-packer, 16c.; front-end inspector, 16c.; engine inspector, 20c. or 25c., and sometimes machinist's pay; tank inspector and repairer, 18c.; shop laborers, 12½c.; wipers, 12½c., or piece-work; tool-boy or supply-man, 12½c. to 15c.; fire-builder, 16c.; engine-watcher, 16c.; and call-boy, 15c. These rates, as a rule, imply twelve hours per day, but the organization in some shops might call for ten hours.

These men are provided with books made up of standard forms covering the details of their inspection and the repairs which the inspection indicated as necessary. When complete the books are filed as records, and for use as evidence should a lawsuit involve the company incidental to the failure of poor condition of the parts.

In addition to these routine men, a roundhouse, taking care of one hundred engines, will likely have twenty machinists, each with his helper, for the running repair work, that reported by the engineer or the inspector; ten boilermakers, for leaky flues and repairs to grates and ash-pans; two or three pipe-fitters, to look after the innumerable leaks in the joints of air and steam lines arising from the vibration of the machine and the jar of high speed; and a boiler-washer's gang, the time of which is fully occupied in washing each one of these engines at least once in thirty days, or as the State law dictates.

Emergency Work.

As it is impossible to foresee just what conditions will be in evidence on an incoming engine, great executive ability is required on the part of the foreman in order that these men may be distributed to the best advantage. He must continually adjust his unvarying force of machinists, boilermakers, and what not, to ever-varying conditions, and the solution of some of them has the riddle of the sphinx outdone.

These big locomotives over which he maintains unceasing vigil are contrary, whimsical even to a degree. You can never speculate with any certainty on just what vagary will be next in evidence. Any unlooked-for trouble which breaks out generally runs in "threes."

There will be three sets of steam-pipes to grind, three pairs of wheels to drop, and three of the hardest driving springs to renew. This three is a popular superstition of the roundhouse, but it seems, curiously enough, to be borne out in fact.

The Feminine Flier.

Occasionally an engine which has been receiving the best of care, necessary through its assignment to a fast train, and which has been a model of decorum for many weeks, will have a main rod brass "fly up," red hot, without the slightest warning, resulting in twenty minutes' delay and an avalanche of correspondence from the powers that be, demanding that a cause for the unseemly occurrence be assigned forthwith.

Such letters pass from the superintendent of motive-power to the master mechanic, and thence logically find their destination, for the outgoing trip, in the smoky little office of the roundhouse foreman. It is often quite difficult for him to say truthfully what caused the brass to heat, and the engineer, with whom he takes the matter up, doesn't know either.

It is a perplexing problem, as a convincing cause must be given for each and every engine failure, and often the foreman wanders for a long time in vain speculation, and in the face of demands, daily more insistent, for the prompt return of "all papers," before an explanation can be found which past experience tells him will prove satisfying.

Another engine, heretofore regarded as more than normally faithful, will suddenly develop a most inexplicable and mysterious "blow." The engineer will report what his judgment leads him to believe as the true cause—cylinder packing, possibly—and the foreman will accordingly have some machinist pull the pistons, only to find that the packing is O.K. The next trip the steam-chest covers will come up, and with the same negative result. They might even renew the packing, or balance strip springs, on general principles; but often the blow obstinately remains until the engine goes through the back shop, unless some machinist finds and corrects it by accident.

There is a vast amount of time and labor wasted in every roundhouse in the

country in finding things; defects which, although unquestionably in evidence through the poor performance of the engine, are either not intelligently reported or cannot be readily located. Locomotives at one time, and not very long ago, were simple; and when something went wrong, there was little doubt regarding the particular part which required attention. Now the complications are such that they have, if it must be said, grown beyond their operators on the road and their attendants in the shops.

It is really not fair to ask, in the face of the exacting demand on every faculty to get a four-cylinder, or a balanced, to say nothing of an articulated, compound weighing two hundred tons, successfully over the road, that an engineer be such a master of its intricacies as to be able to set down, in the narrow confines of a work-slip, just which one of its multitudinous steam-chests or cylinders harbors a blow. The roundhouse foreman is fortunate, in fact, if the engineer can confine the trouble to one side of the engine, or to one set of engines which are embodied in the grand ensemble.

This is true, notwithstanding the fact that the locomotive engineer of this generation is vastly more progressive in his calling than was his prototype of only a decade or so. Those famous and exploited runners of the past would stand appalled, to say the least, at what their successors have to contend with to-day.

So, in the absence of the proper report, the trouble must be patiently and intelligently sought for. It ties up a lot of machinists whose time is urgently needed where trouble is known to be, and sometimes results in the big engine being half torn apart before the defect is chanced upon.

Unavoidable Waste.

There was an instance illustrative of this on the New Haven once, in the Boston roundhouse, when, on account of not knowing just where to look, both low-pressure pistons and both valves were removed, only to find the trouble at last in broken packing rings on one of the small and easily handled high-pressure pistons, which could have been removed and replaced in less than two hours.

The trouble in this case, however, was that the supervision, although in other regards adequate and competent, was deficient in compound engine experience. Knowing where to look, however, is a great qualification for a foreman.

Rapid fire good judgment is exercised every day, and in a degree which would be amazing to even experienced railroad men if they could be brought in sufficiently close contact with the situation in the roundhouse to appreciate it. It is safe to assert that the hard-worked foreman is asked at least one hundred knotty mechanical questions every day, and many more of lesser import by the unskilled labor.

The former will range from: "There is a crack in one-half of these brasses I am filing; do you want to put a new brass in?" to "Take a look at the right back wheel on the 1068 when you get around that way, and see if you think it is loose. There is some grease working around the axle at the wheel-fit," and, maybe: "Do you think this tire is working? It looks that way to me." They are mean questions, too; nerve-racking because the responsibility which the decision implies is great.

Even if absolutely no occasion for alarm exists, they are things which a foreman takes home with him. Through the long night they intrude upon his well-earned rest, and speculation, which cannot be dismissed, is rife on whether anything has gone wrong in the now mad race with time on which they have embarked since he left the roundhouse, and he feels much better to see them roll safely in during the next forenoon.

Shaffer's Forebodings.

One midnight, and of undue frigidity for even a winter night, in Chicago Junction, Ohio, Day Foreman Shaffer was encountered wandering aimlessly, heart-broken almost, up and down the principal street of the little railroad town.

"What's the matter, George—lost your switch-key, book of rules, or your job?" was the natural query.

"No, not yet; but I feel pretty bad. They just called for the wrecker on account of the 3708 in the ditch at the east end of Gallaghersville."

"Well, what of it? You didn't put her there, did you?"

"I'm afraid so," was the almost tearful reply; "in fact, I am sure of it. Don't you remember, this morning, you showed me two spokes cracked in her right main driver? I didn't think it amounted to anything, and let her take her run. Now she has stripped that wheel and finished herself, and it is up to me."

Just then the call-boy came, running. "Hey, boss! Mr. Shaffer!" he yelled. "The 3708 just side-wiped a freight at Gallaghersville, which wasn't in to clear, and she is down the bank. Who'll I call for the wrecker—anybody I can get?"

Relieved Over a Wreck.

"Side-wiped a freight!" repeated old George in joyful cadence. "So it's a run in, is it? Thank God! That's all I've got to say." And he actually essayed a few steps of a snowy break-down of startling effect in the pale moonlight, while the call-boy vanished in ill-concealed alarm in the direction of the bunkhouse. It was the first time he ever saw a boss evince satisfaction, to say nothing of a joy-step, through enthusiasm over the woful tidings of disaster; but he might have understood if he knew the relief his words afforded to Foreman Shaffer.

To know what will run and what will not or should not run, and to decide promptly when the troublesome question arises, can only come from long experience; but no matter how momentous the problem, the judgment exhibited is always sound. There is no record, at least within the ken of the writer, in which an error of judgment on the part of the roundhouse foreman became the cause of wreck or accident.

Of course, intimate knowledge of minor existing defects, as in the instance of Mr. Shaffer, is disquieting when the call comes for the wrecker; and when no information is at hand concerning the true cause, the conscientious foreman mentally reverts to the only adverse condition of which he has any knowledge, and for the time at least may blame this for the accident.

No chances are taken, anyhow, in let-

ting parts run when in a dangerous condition, or even when in a condition liable to result in failure, although many, even including engineers, will occasionally insist otherwise. It cannot be denied that any roundhouse can exhibit an engine with one or two broken wheel-spokes, and maybe with a driving center cracked and banded; another may have a main pin with a vague indication of loosening in the wheel, and still another a fracture in one of the frames.

This does not mean that these parts are unsafe, or that a chance is being taken in letting them run, because there is a very large percentage of strength in their original design over what is actually required to stand the work which they have to do. When these defects do appear in what are regarded as the permanent parts: frames, driving-wheel centers or cylinders—and the rigid inspection of the present-day insures that the discovery cannot be long delayed—it is simply regarded as a warning to be vigilant, and, if the defect develops or extends in succeeding trips, the engine is taken out of service until the part has been renewed.

Imperative Repairs.

Not by any means, however, can all parts be safely temporized with in the instance of defects. When a flaw appears in a cross-head, main or side rod, or a piston-rod—in fact, in any of the so-called reciprocating parts—a tyro in the business knows that the locomotive cannot turn another wheel until it is repaired, and if the unlikely procedure were attempted to put it on the road, the engineer wouldn't take it. There is a double check all round, and the situation predominates tremendously in favor of its being returned to service in better condition than it reached the roundhouse.

In addition to the actual work at hand, which is plentiful beyond the dreams of avarice, a singular feature of the roundhouse foreman's duties is the diplomatic handling of imaginary ailments; imaginary, although assigned in all honesty of intent by the engineer.

A foreman must be popular, and he must retain popularity. He is in what might be termed closer "frictional" contact with more powerful labor organiza-

tions than any other person in railroad service. On an organized road, and the majority of them are organized, he handles directly or indirectly men affiliated with the International Association of Machinists, the Brotherhood of Locomotive Engineers, the Brotherhood of Locomotive Firemen and Enginemen, and others of scarcely less importance.

Must Be a Diplomatist.

These powerful organizations have secured signed agreements by both parties with the railroads. In the instance of the machinists, these agreements are framed in the roundhouses and shops, and in that of the others they are printed and bound in book form for ready pocket reference.

It is intended by the company, whose proper official has signed them, that they shall be observed to the letter. Unless the foreman knows their every item by heart, and exhibits the necessary tact at all times to properly interpret the various clauses therein, he might work unconsciously, although none the less effectively, toward his own downfall.

Sometimes a man's native mechanical ability is jarred by a weird conception of requirements for the betterment of a job, gravely advocated by some sincere but mistaken engineer. In such cases there is only one thing to do—keep the peace, and listen without comment, as all good roundhouse-foremen know how to do. He must know how to humor whims, and he must be careful not to antagonize any one.

There was a man named Brown, who years ago ran a passenger-engine out of the Riverside roundhouse of the Baltimore and Ohio, in Baltimore, Maryland. He insisted that the insertion of a thin piece of sheet gum between the block in the foot of each spring-hanger and the frame improved the riding of his engine, 804, at least seventy-five per cent. The proposition was absurd, but, as it was a small job, and Brown a bit of a fire-eater, in the interest of harmony they put them in.

Some Fatuous Freaks.

Old Pete Yeager, another veteran of that locality, had much trouble for steam one season, and after the usual

remedies had been suggested and applied without avail, he contended that a piece of gas-pipe, wedged across the inside of the stack at the bottom, would restore the 846 to her own in the way of fog. About all the device really served was to split the smoke; but imagination and faith did the rest. At all events, the 846 crossed to the right side of the performance-sheet after the horse-play had been effected.

The old 1656 ran up and down the Plymouth Division of the New Haven road for many months, carrying an extraordinary device, suggested by an engineer, to improve her steaming qualities. This consisted of a cast-iron cone, bolted across the top of the stack, and with the point of the cone dropping down inside of it.

This was across the top, remember, while that of Mr. Yeager was on the bottom. Beyond reducing the area of the stack in proportion to its dimensions, the inverted cone had no more bearing on the results, either. All these things, however, served one good purpose at least—they lightened the burden of the roundhouse-foreman who had the knack to sneak them in, even if he did have to shut the old man's eye up to do it.

The Overwhelming Routine.

There are certain routine duties of his own which fall to the lot of the foreman, in addition to his everlasting struggle with the unexpected. He is required to O.K. the individual time-slips turned in at the close of the day by each man on his force, sign all orders for material required by the machinists and others, and to mark up the ready-board for the information of the despatcher.

In recent years he has at least been largely removed from one fruitful source of trouble—the handling of the engine-crews. Now the engine-despatcher takes care of this, and handles the call-boy as well, the latter in itself no inconsequential proposition.

Before the advent of this assistant, the foreman had it all to do. He kept the turns of the engineers and firemen straight, as best he could, from the list of extra men which hung, half effaced, on a grimy call-board, held the call-boy

under his wing, and "gave away" the vacant engines largely as he listed. Incidentally he saw that the crews were hustled to the house in season to leave for the depot without a terminal delay, and often rode with or chased them all the way there to attain this necessary end.

The Extremes of Duty.

When to these distractions might be added the signing and the attesting to the correctness of the engineers' and firemen's time-slips, shop-men's time, wrangling with the train-despatcher, per phone, over power, getting the finished engines out of the house to make shop-room for the line on the ash-pit just arrived, besides maintaining an unrelaxing vigilance over one hundred men representing a dozen trades, it may be appreciated that the roundhouse-foreman earned his meager stipend.

It is meager enough now, averaging about one hundred dollars per month for the entire country; but it is improving in that regard, and also in the direction of shortening the working hours of the foreman.

The recent innovation of the Erie Railroad, in its larger roundhouses, of dividing the twenty-four hours among three foremen, each on an eight-hour turn, has met with much approval, and is resulting in increased efficiency.

Of course, it means divided responsibility, in a way, as a foreman could only be held accountable for something which went wrong on his own trick; but the old plan of having a man in charge responsible for twenty-four hours was too much, and this reform is not a day too soon.

Although conditions have changed somewhat in this department, as they have radically changed in the other shops, the roundhouse and its foreman still remain largely true to the ideals of the past. Half the roundhouses which you may visit, when in the grip of winter, will display the same features which possibly you recall so well—the broken window-panes, the doors which do not fit at the bottom or will not close behind the engines, and which allow the icy blasts and the shifting snow to find a way in just as unopposed as in the days of yore. You will see the men out of a job, and maybe

some with it, backed up against the old round stove, with its stumpy stack, their wrenches and tools thawing on its tray, and grouped in the same familiar fashion.

The steam escaping from the housed locomotives still congeals into a frozen hail of minute particles, through which specterlike figures stealthily grope their way, each with an arm extended in the same old way which protected you many times from collision with a bar or truck.

Over there a machinist is prying a jack from its icy bed, and in the circle behind the house is the foreman, indicating to the turntable-man to run such a one in here, and take another out of there. You will observe that the same human line of grief still circles around him, and that his epigrams and witticisms, as each one is dismissed relieved of his burden, have lost none of their poignancy. You will think, maybe, that time has dealt gently, after all, with the roundhouse end of it, and you might wonder after these many years how they can still find a man to take this job, when you know the equivalent he has to give for the honor of holding it.

No spirit of optimism could ever define

it as an easy job. With its grief and adversity rightly viewed in their true proportions, it would appear amazing that a machinist accepts it, especially in view of the fact that his trade qualifies him to make an equal amount of money in very much easier fashion.

Nevertheless, you know its vale of tears is trod by a thousand sturdy and ambitious souls, who rightly view that through it alone lies the goal of advancement in the service, and the grand prize of recognized executive ability in the railroad world.

Apprentice to machinist, machinist to foreman, foreman to master mechanic, and master mechanic to superintendent of motive power. This is the time-honored road, and there are few, if any, instances of deviation in the careers of those who hold this latter and justly coveted position to-day.

Without the invaluable experience which came from the hard knocks in the roundhouse they might not command the ten thousand dollars annually which many now receive. It may be that the roundhouse-foreman knows of these things, and they may help to explain his fortitude and constancy at least in part.

Mr. Rogers's next paper in this series, "The Master Mechanic," will appear in our July issue.

STEAM-ELECTRIC LOCOMOTIVES.

A LOCOMOTIVE of an entirely new type, the driving-mechanism of which consists of a steam turbine coupled to an electric generator, which supplies current to four motors on the driving-axles, is under construction by the North British Locomotive Company, of Glasgow, Scotland. This new type of motive power, which is called the Reid-Ramsay system, was described by Hugh Reid, deputy chairman and chief managing director of the company above mentioned, in his inaugural address as honorary president of the Glasgow University Engineering Society, October 29.

It was explained that this is not the first attempt to develop a self-contained steam-electric unit. The Heilmann steam-electric locomotive, built in 1894, was given wide publicity at that time; but the Reid-Ramsay locomotive, it is stated, develops the idea on a different and more practical basis.

In the new engine, steam is generated in a boiler of the ordinary locomotive type, which is fitted with a superheater. The coal and water supplies are carried in the side

bunkers, and side water-tanks at both sides of the boiler. The steam from the boiler is led to a turbine of the impulse type, running at a speed of 3,000 revolutions per minute, to which is directly coupled a direct-current, variable-voltage generator.

The generator supplies electrical energy at from 200 to 600 volts to four series-wound railway motors, the armatures of which are built on the four main or driving-axles of the locomotive. The exhaust steam from the turbine passes into an ejector-condenser, and together with the circulating condensing water, is delivered eventually to the hot-well.

As the water of the condensation is free from oil, it is returned from the hot-well direct to the boiler by means of a feed-pump, and the supply of water carried in the tanks is actually circulating water for the condensation purposes. It is circulated by means of small centrifugal pumps driven by auxiliary steam turbines placed alongside the main turbine and dynamo.—*Railway and Engineering Review.*

WHY HUTTON HATED BATS.

BY ROBERT FULKERSON HOFFMAN.

He Relates Here What the Coroner
Failed to Bring Out—and More.



-S-S-S-T there! Shoo! You brood of vampires!"

Quiet-spoken, well-ordered Hutton sprang suddenly erect from his plank seat just outside the door of the watch-box at the top of the mountain. He flung his arms wildly above his head and waved them futilely while he limped a step or two forward, and then stooped to clutch a chunk of rock ballast in either hand.

These he hurled venomously at a pair of wheeling, fleeting shadows that plied tirelessly to and fro in ever-varying dips and high-flung elliptics in the twilight, which was deepening under the overhanging pine boughs across the tracks.

With a muttered imprecation he faced about, limped back to where his astonished visitor sat dumbly wondering at this sudden eruption of feeling, and reached past him through the open window into the watch-box.

When Hutton's cramped and twisted body had recovered itself from leaning deep through the window, he stood quickly erect and faced around again to the tracks. In his hands was a high-grade hammerless shotgun of automatic pattern. With practised skill he flung the muzzle skyward and the stock to his shoulder.

For a little space, his eye gleamed like a living spark along the barrel while the muzzle traced in the half-darkness in miniature the fantastic dips and swift-drawn ellipses of the objects of his wrath. Then the gun spoke sharply—once! twice! in quick succession.

There came a flabby, muffled, double thud upon the tracks, and from the mountain-top rolled the echoes.

"Got 'em both!" he announced with deep satisfaction as he carefully replaced the gun in its concealment and picked up from the window-ledge a rusty claw-hammer and two bent wire nails.

"And I'll get every last one of the grinning little demons, if I'm let stay on this trick," he concluded savagely.

"Bats! Ugh! Man, how I hate 'em!"

He hobbled out to where the tattered little victims lay gasping their hideous last with sharp white teeth gleaming evilly from baby-pink mouths. Catching them up gingerly by the tips of the wide-spreading membranes, he labored on across the double track of the siding, and climbed the yellow shale bank to the foot of a huge pine.

With the eager energy of one who would spike home a switch-rail past slipping, he nailed the small malefactors well upon the trunk of the pine. To the intent eyes of the visitor, the somber belt of ruffled gray that girdled the red glow of the giant pine bole assumed a new significance. That which his wandering eyes had earlier adjudged a mere curling of the roughened bark, he now saw was row upon row, circle above circle, of bats nailed with methodical precision to the trunk of the tree.

"Yes, we'll get 'em all, by and by," said Hutton in keen content, resuming his seat upon the plank. "But there must be a holy show of them in that crevice of rock up yonder, if a fellow could only get to them.

"I'd a noticed this pair sooner, maybe, only that I'm sort of took up with what some fellow's saying about engineers and things in this paper I been looking over just before you come."

He tapped softly with the back of his knotted hand upon the soiled and much wrinkled illustrated weekly lying on the bench beside him.

"These writer people," he continued, "they make a fellow think of the old cross-head pumps that fed boilers before injector times.

"Sometimes there's just a little pin-hole or a split in the thing somewheres, and what they don't put into the boiler they splatter all over the right-of-way, but always keep pumping—wind or water.

"It makes a scandalous crop of railroad weeds and rubbish for the newspapers. And that's like the old plunger pumps, too. For I've seen many a section foreman stand and cuss till he was blue in the face, when one of them old engines went plugging past with her pump petcock open, irrigating the dry wayside till a ton of weeds grew where only a mild cutting grew before—to say nothing of what the foreman got if he didn't sidestep.

"But he most generally did—the gang foreman—and that's what I'm aiming to do with this writer man's little spurt; sidestep it, and let it go by without cussing, for the sake of the good stuff he did get into his newspaper boiler.

"That's just when you come along, and the bats break out, and this writer fellow's spurt seems all of a sudden to catch me square in the face and carry me back to the day that Ned Hanlon and the rest of the crew went smiling down the grade here on Hanlon's engine, never to come back.

"I take it the meeting-point this writing aims to make," softly tapping again with his roughened hand upon the pictured sheet, "is this:

"That engineers on loco-

motives don't cut the figure in engine running nowadays that they did in times gone. The eagle-eye's not the big noise now. His wings is clipped by the despatcher, who deals out all the cool, hard nerve, and there's never a chance to be took, lessen the despatcher hands him the dare.

"The semaphore guides him by day like a cloud, and the red light leads him by night, gentle, like a pillar of fire.

"He's that hedged in and cuddled down in safety in the cab that he can't go wrong, nor do any figuring for himself without getting clean off the right-of-way.

"No more gambling with death. He's



TO THE INTENT EYES OF THE VISITOR, THE SOMBER BELT OF RUFFLED GRAY THAT GIRDLED THE RED GLOW OF THE GIANT PINE BOLE ASSUMED A NEW SIGNIFICANCE.

told just how fast he's to run, each minute and every mile. No more winning back minutes unless he's told. The romantic times is gone, says it; meaning, I take it, that there's no more wondering what's over the mountain or around the curve; what will hold strong and good for the hill-climb; what will let go and spill; who's a coming against him; who's hung up and cussing on the siding.

"No more mystery at the end of the rail or the end of the run. The eagle-eye's a stuffed bird under a glass case in the despatcher's office. He couldn't break out even if he's alive, this paper makes out.

"Well, 'It's wrong!' I says to meself when you're walking down the track the while back. 'But if you was to try to tell it, how would you tell it?' I asks meself.

"And while we're setting here, quiet-like, the bats wheels up and writes the answer in the air before me eyes:

"It's the unknown, the mysterious, the thing you can't weigh nor measure nor deal out over the wire, that'll mark the railroad and the engineer with romance—do they call it?—till the last curve is straightened and the last mountain is leveled.

"And even then—which is no time at all—if you looked across the brown world as you'd look across a sea and sighted the smoke of a coming engine, hull down, as the sailor says, below the rim of things, knowing that she's heading for you at a hundred miles an hour, you'd stand there hungry, but what you'd see what's to happen when she got to you!

"You would?

"We know it well, the mystery, the thing that comes always in a new shape out of the unknown. But *how* will it come?

"Look at them!" exclaimed Hutton, extending his long arm toward the big pine and its gruesome ruffle growing duller in the fading light.

"Would they kill a man on an engine?

"'No,' you'd say. We'll see.

"Would they be the death of a man cutting off helper-engines and holding this watch-box like me?

"Again you'd maybe say, 'No.'

"His arm swept out again to compass the peaceful village far below, still lying warm in the red glow of the hidden, waning sun, while they, sitting at the mouth of the open cut from the tunnel, were deep in the lofty gloom of the mountain's darkened head.

"It was the end of a day like this," he said, "when Ned Hanlon headed out of the tunnel-mouth up yonder. The semaphore-light at the telegraph office was red against him, glowing sharp and bright in the half-dark of the cut and the black mouth of the tunnel, same as now.

"The vesper bell was sending the same clear, half-laughing, half-weeping sound trembling up here from that little church spire down there in the sun, same as now. And good old laughing Ned rolled them—fifteen box-loads—down this train length of grade with the helper-engine coupled on ahead.

"They stopped here by the watch-box, and Danny Roe cut the helper off and crossed it out of the way, while Ned sat in his cab-window and looked out into the deep of the valley, like he always did.

"Yes, Ned seen it all, just as we're seeing it, and he called, laughing like, to Danny:

"'Danny! You hear that bell down there in the valley? That bell's a calling for me, special, to-day!'

"'How's that?' says Danny. Danny had this job of mine then.

"'Come closer and I'll tell you,' laughs Ned.

"'I've no time to give to yer laughin', ye rascal,' says Danny. But he goes over close under the cab-window, no less, and Ned tells him, low and quiet.

"'Ye will?' says Danny, stepping back sudden, and loud as a young crow.

"'Ye'll be marrying her that's head nurse at the hospital. The slip of a girl that's mothered us all, one time and another. Ye'll be takin' away from us little Mira Dale, that's sister to all and mother to many's the homeless railroad lad.

"'Well, bad luck to ye for the sly blade ye are. And the best of luck to ye both to the end of the world—and then plenty!'

"'Thanks, Danny,' says Ned, with his

face red as the glow of the sun down there in the valley.

"'It'll be to-night. As soon as I can wind this string of box-loads down the mountain, get out of my bluejeans, and wash my face.'

"'Well, it's too bad ye must take up this empty gondola then, the trip,' says

car, Danny, or are we only on the rip-track?'

"'I'm not,' says Danny. 'Let her go!'

"The car released when they cut her in. The brakes released along the train when she was coupled in. They set and dragged, all right, when Ned took the high-sign from the caboose, a bit later,



"HE HEARS THE LONG CALL AGAIN."

Danny, with a jerk of his thumb toward the empty on the siding. 'But it's orders up at the wire shanty, and ye may's well pick it up without waitin' till he comes up from the caboose and cusses ye into it. Yes, yes; I know ye have enough. But it's orders.'

"Danny cuts Ned's engine off at that; crosses him over and couples them up.

"He fusses and batters so long at the air-hose coupling that Ned hollers quite savage:

"Say, are you rebuilding the old

and tested his air when starting down the grade at the first move forward.

"And then he took them over the lip and rolling down into the long stretch of the grade yonder, with the weight of fifteen crowding box-loads and the empty upon his soul and the joy of his wedding-night swelling in his heart.

"But he's more than that. He's the question of the despatcher, handed up to him by word of mouth, from the wire, just at the last minute before starting. That's laying heavy on his soul.

"Can he make up five minutes?" is asked.

"Asked, mark you. Not ordered. Yes. There's still something left to the eagle-eye and the conductor. There's never a day that the two of them don't add up the book of rules, their handful of running orders, and the sum of their past luck, divide it by three, and do the best they can with running on the answer.

"So, Ned flashes his wits over the ten miles of crooked grades that'll take him to the bottom, swallows the rule of twenty miles an hour top speed on the grade, and says he can make it for the sake of the ten-car silk train that'll be laying at the yard when he gets there with the five minutes saved.

"All this is how he come to let them roll a little strong at the start from the top, with his twin-brother Frank, as like him as another self, holding down the fireman's box, and the head shack dangling his feet from his perch on the tender tool-box above the gangway.

"Yes. The two Hanlons—the 'Red-ball Twins,' we called them when they took the fast-freight run together, with Frank to be set up to running in the month following—the two of them and the head brakeman rolled down under the pine-boughs, and the quaking ash waving and wimpling in the breeze; the sun reddening the valley, the shadows darkening the cut here, and the bell sending up its evening call—just like to-night.

"Danny Roe set here upon this plank and listened to them going down, down, deeper along the mountainside, and he talked to the red-pine bole across the tracks, shook his head, and waited.

"How do I know? He told me that—and more.

"Not long he waited. Then the thing that was aching in the bottom of his mind came real out of his fears. Ned's long call of the whistle came booming up the mountainside, and the roar of the wheels floated up to Danny like he stood on a cliff and heard the sullen booming of a sea.

"A little longer, and he hears the long call again. Then the crashing boom and grinding roar of the likes of a landslide from the heights—and Danny's racing down the grade afoot, a wild man in the dead quiet of the mountain.

"No, no! Yes, I know the doings of it. But I'll not say it.

"Ned Hanlon's air went bad. That's all I'll say now of that. He lost them on the second grade. We were ditched at the next turn on the hip of the mountain. The noise that Danny hears is us rolling down the hillside in a splintered heap of plunder. When I come to at the bottom, I'm laying with me leg pinned fast in the rubbish.

"The blood that's dripping from Frank Hanlon's face and the blood that's draining from me own is making a pool in the soft coal where he's dug me face clear, and he's holding me mouth shut and breathing the breath of life back into me nostrils with his own good life.

"I'll not tell you more of that. I lived it once—

"Eh?

"Yes. I was the front brakeman.

"It's too fresh in me mind, just yet, you see—maybe, some day— But the green you now see darkening in the valley round about the village is but the second green that's grown above the face of Ned Hanlon. Yes, under the engine, Ned was—

"Well, we lost them on the grade, as you've seen, two years ago this day, and Mira Dale lays aside her bride's dress that night, and dons her suit of striped blue-gray, taking her brave way back to her place in the hospital 'stead of the church.

"When next I'm knowing, Frank and me is pardners again; but it's side by side on our cots in the accident ward.

"The days drag by, with Mira hovering over the two of us till, after a spell of setting up, we're able to slipshod some around the ward—me with me busted leg all bent, but mending fast, and Frank with his hurted head all bandaged, and mending slow.

"It goes on that way till we're in the convalescent ward, and all the while, from the time that Frank comes out of the operating-room and the gas, or whatever they give him, there's never a word in his talk that shows he's been through the mixup same as me.

"At times we're linked arms and shuffling along the ward together like, and he always heads for the big end window that looks out to the mountain here, and

when we're lined up there he keeps saying:

"What are they holding us for, Hutton? Why don't we get orders and go? We'll never make it this way!"

"It's plain there's something bad hurt about him. The color's creeping back to his face, but not the light that ought to be in his eyes.

"So I says to him, gentle like at such times, after I'd had a talk with Mira:

"It's the mix-up in the pass that's holding us, Frank. Don't you remember? We lost them in the run down the mountain, but it's all right now. Remember?"

"I wasn't in no mix-up," he'd say, looking at me sober as owls. 'Let's get orders and go home.'

"It's that way when the coroner gets leave to hold what part of his court he needs there in our ward. I tell him, free, all he ought to know, from my thinking. Frank just looks him sober in the eyes, and says:

"I wasn't there. I'm running with my brother Ned. Ned don't make no mix-ups. Say! What are they stabbing us for? Why don't we get orders and go?"

"Well, the coroner gives it up, at that. He's got all he wants, anyway, for coroners don't need much more when there's a dead engineer. When he's gone, I slips away from Frank and makes for the hospital superintendent's office.

"Going down the last flight of steps from our ward, my eyes is that blurred



"IT GIVES ME SOME OF A GASH ABOVE THE EYE."

with thinking about Ned and Frank and all, that, with my leg not working just right, I jumbles the last two stair-steps into one, and fetches up with my head against the corner of the hall surbase.

"It gives me some of a gash above the eye—you'll notice the mark here—but it gives me, too, more of the chance I'm wanting, when they've lifted me in and done the stitching that it needs.

"I'd been thinking it a lot on me own account, you see, and I'd slipped down to the basement and talked it some with the hospital engineer, who's an old locomotive man and full of sympathy.

"He agrees to what I'd planned, some days before, all providing the doctor's willing.

"So, when they're done patching up me eye, I ups and says to the chief surgeon:

"Doctor, will you listen to me a word about Frank Hanlon?"

"Yes," says he. "Fire away!"

"His head's not well fast enough," says I. "Will you give him into my care for two hours each day?" I says.

"I will not!" says he, prompt, and savage as bears. "What would you do with him if I did?"

"Then I explain to him. He kind of laughs with sympathy, and my point is made.

"Well, you may try it," says he, "but you'll take a ward man with you, and quit at the first sign of weakness, or when the ward man says enough.

"There's a little clot there that's got to be absorbed and worn away before Hanlon will remember," the chief goes on, "but otherwise he's sound and healthy as a young buck.

"You may try it, but go slow," he says at the last; and I hurried away to the basement, cut head, bandage, and all.

"I got a cap and suit of overalls from the engineer.

"When I'd made my way back to the ward, the nurses knowed all about it, and had their orders. Me and the orderly walks up to where Frank is standing, looking up here at the mountain, and when he turns from the window I hands him the cap and overalls, all quiet, before he can make his question about being stabbed for a layout.

"Come on, Frank," I says. "We're called for three-thirty."

"He takes the things, as natural as ever, and walks away with us to the fire-room, where the hospital boilers are kept.

"What do we get?" he asks on the way.

"First thirty-four," I says; and he talked along chipper as crickets till we set him sweeping up and firing and fussing around down below.

"We kept it up for three days, in short shifts, and him talking railroad more sure each day. Then, on that third day when the sun's dropping behind the mountain up here, he turns away sudden from the

boiler-room door, where he's been standing.

"He's as white as death, and the sweat is pouring off his face in little trickles.

"He drops, weak like, on the bench inside the door, and looks at me, scared and wild.

"Hutton," he says, "where's Ned? Was there a getaway on the mountain, or is there something the matter with me? All right, Hutton," he says, before I can answer, "I know now!"

"We caught him as he slid off the bench, limp as water, and carried him back to the ward. He's in bed a week, but keen and clear, and getting stronger.

"It's two weeks more before we're discharged as cured, and the day after that we're in the superintendent's office having our railroad hearing.

"It goes the regular route of such proceedings, and spite of all me and Frank can tell to the contrary, it's being drove in and clenched that Ned Hanlon fiddled his air away on the grade, and lost them on the hill by having an empty train-line when he needed air the most.

"Reckless running and bad judgment was the burden of it, when the door opened and Danny Roe, who'd not been seen since the wreck, came in, and stood just inside the door, with his old gray hat clutched and crumpled in both his hands.

"Hallo, Danny!" says the superintendent. "What did you run for? Where have you been? Come over to the table. We'll not bite you!"

"Now, I'll own that Danny was rumpled and wild-looking; but he got too scant a hearing.

"Did you cut the air in for Ned Hanlon the day of the runaway?" asks the superintendent.

"I did," says Danny, crossing over toward the table where we're all gathered.

"There come with him in the draft from the door a breath of something that's sure death to railroad jobs this day.

"There was bats—" says Danny, licking his dry lips and clutching at his hat.

"Bats!" says the superintendent, cold as ice.

"Yes. I guess there were!"

"I'll ask you one more question, Danny, and I want the answer straight. Have you been drinking?"

"'I'm weak with the sorrow of it,' says Danny. 'I took wan drink to help me to stand up before ye and tell the truth, and if ye'll listen to me I'll tell it. There was bats in—'

"'That's all, Roe!' breaks in the superintendent. 'You are discharged for absence without leave. I would not go so far as to say that you are drunk; but we have no time here for bat stories. You may go.'

"'For the love o' man, Mr. Sarchy,' says Danny, 'ye wouldn't turn me away like that, when I'm taking the blame for it all on me own self! Let me clear the name of Ned Hanlon that lies speechless and still over yon be the church, and I'll—'

"'Don't make this thing harder for us all, Danny,' says the superintendent. 'Just pass out quietly now and save trouble. You are fired.'

"'Danny went—and said no more.

"'But, when it's all over, he's waiting for me and Frank up the street a ways, sober as ever was any man, and the bitter tears streaming down his face. And this is what he tells us:

"'The evenin' Ned picks up the car on the mountain-top, I'm settin', the while before he comes out of the tunnel, watchin' the bats wheelin' and tumblin' around the big pine.

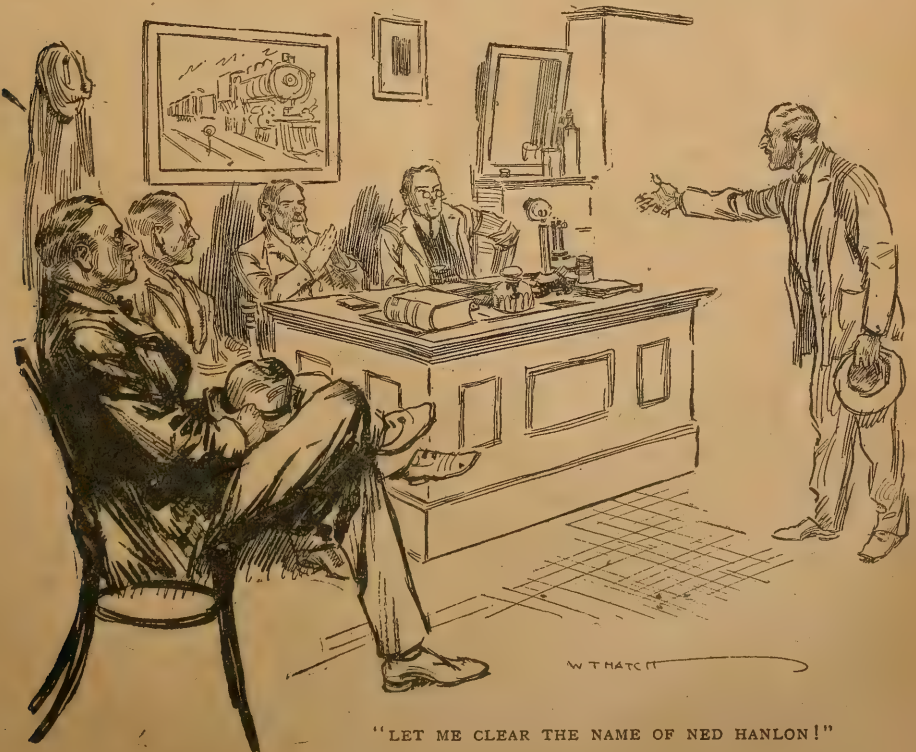
"'The empty Ned's to pick up stands there with the air-hose hangin' to the ballast 'stead of hung proper in the dummy. It's me own neglect, an' I'm that worthless that I don't get up just then and cross over to snap up the hose to its place, as would have been proper.

"'No. I sets there, lazy, to the shame o' me, watchin', watchin' the little devils wheelin' an' dippin' till, of a sudden, wan o' thim spats hisself ag'in' the car-end and sticks there, to rest like, as they will, an' the mate o' him swoops after and clutches fast to the air-hose.

"'It's all done in a wink, an' before I can get to the brute he's slithered down an' crope into the hose-coupling!

"'I beats an' pounds at it, an' I'm at it yet, you'll remember, when Ned comes with the train. I can't get him out, an' I'm that ashamed to say anythin' for fear of Ned's teasin' that I says to meself:

"'Well, three-foorths o' ye's juice o'



"LET ME CLEAR THE NAME OF NED HANLON!"

bats, an' the other half's feathers, an' I'll not raise a row about me own ears fer the sake o' ye!"

"That's where I'm wrong. The bat lays low till the air's tested twice, an' ye are off down the mountain. Then he's squeezed up or was pushed up into the strainer be the air. He plugs the hose! The train-line's empty—an, oh, it's me that kills poor Ned Hanlon an' sends sorrow to ye all!

"That's what I done! I done it o' me own shiftlessness an' me false shame fer the fear o' Ned's bit o' fun at me! I hunted in the car-scrap be night till I found the sills o' that first car, an', ripped an' hangin' there still, was the air-hose. I tore it open to the couplin', an' found the murderin' bat!

"The filthy body an' the bones o' him was pluggin' the couplin', as I tell ye. An', fool that I am, I tore it out be bits and beat it to nothin', there in the dark o' the yards; an' I've nothing to show to clear the name o' Ned Hanlon. They'll not believe me. No, not one!"

"That's what Danny told us," said Hutton, searching the face of his visitor in the last of the daylight in the tunnel-cut.

"We tried to get him heard again, but it was no go. The thing was closed, they said. And there's only three of us now that believe what Danny told—that's me and Frank and Mira."

"Four," said the visitor quietly.

"No; three," said Hutton. "Poor Danny died of a broken heart, and there's only a short span of earth between him and Ned in the quiet down there under the shadow of the church spire."

"Four," repeated the visitor, with quiet insistence. "Won't you count me?"

"Then, four," said Hutton, reaching strongly for the visitor's hand. "And, since you are going down on the 'Red Ball' with Frank Hanlon now—there's his headlight cutting the black of the tunnel-mouth—I'll tell you this:

"This night Mira Dale will lay off her striped dress of blue-gray at the hospital, and, in the bride's dress that's been folded away these two years, she'll stand with Frank beside her in the church. She wanted it so, about the dress, and Frank wouldn't say no to that.

"The bell that called to Ned, poor boy, was calling Frank to-night. Frank will go now, and I'll set here listening till I hear his whistle booming out the home-shouting to Mira, when he's safe in the yard-limits down yonder.

"Yes, the yards are just below us, you might say, for all the ten miles of turning and twisting down the mountain, and after the boys are gone a spell, with all quiet up here, the whistle for the home-signal comes rolling up the mountain, like the far singing of a big choir.

"Now, if some writer fellow was to tell about Danny and all—tell it fine and good—would it be like what I'm alludin' to when we first set down; what they call 'romance'?" queried Hutton, in some evident concern as they rose at the coming of Frank Hanlon's engine. "Or would it be just common true, like regular reading?"

"Romance," said the visitor softly, as he set his stronger pace by Hutton's limping gait, toward the waiting engine.

WHAT'S IN A RAILROAD.

DID you ever stop to think of the amount of material necessary to construct one mile of standard railroad track, leaving out the embankments, cuts, bridges, pipes, masonry, telegraph, fences, and buildings of every kind—including only the bare track? The following figures show:

Ballast, 3,000 cubic yards; weight, 3,750 tons; 150 car-loads.

Ties, 3,000; weight, 192 tons; 6.4 car-loads.

Rail, 90 pounds per yard; weight, 141 tons; 5.2 car-loads.

Joints, 328 pairs, 33-foot rail; weight 13.7 tons; .46 car-load.

Bolts, 12 kegs; weight, 12 tons; .04 car-load.

Spikes, screw, 12,000; weight, 7.8 tons; .26 car-load.

Tie-plates, 4,688; weight, 20 tons; .67 car-load.

The various materials enumerated above make a total of 4,125.7 tons, or 163.03 car-loads, being about five full train-loads of material per mile of track.—*Santa Fe Employees Magazine.*



Lost and Stolen Cars.

BY PEARSON MACINTOSH.

IT is notorious that the smallest things often cause the most trouble. The more perfect and complex the organization, the more this is likely to be the case. Where, by strict rule, every trifling detail in a large system must be accounted for, it is only likely that the least items will be the most elusive and cause more work than larger and more obvious assets.

In the routine of a great system the small things are as important as the big things. On a railroad these small things are just as important as in other organizations, and ten times more elusive. The checking system that can approximately keep track of the rolling-stock of a great transcontinental line is a monument to human genius.

The Whirlings of the Giddy Freight-Car Over Three Million Square Miles. How Difficult It Is to Keep Track of All Its Spiral Twists.

IN the Union Pacific car service department the documents in this case make a paper monument more imposing than that which was upbuilt with all the deeds pertaining to the purchase of the whole line by Harriman. Yet, this is a simple little case of one empty box car that strayed, got lost, and was stolen.

In the Northern Pacific car service department there's a similarly imposing shaft of documents relating to that same lost, strayed, and stolen box car.

The documents include, principally, letters written by the two roads at the time the car disappeared. The tale has its beginning in the flood that brought devastation to Kansas City three years

ago. In that deluge a freight-train of twenty cars, caboose and all, was washed from the tracks a short distance out of the city.

The cars were mostly empties, and all except one of them were afterward found, more or less unroofed, undoorred, and untrucked, lying thus amputated and scattered over a square mile of Kansas landscape.

The one missing car, an empty, remained missing, despite the efforts of the parties that scoured the country in quest of it, with their very noses to the ground. That car was the property of the Union Pacific, and the road responsible for its return to its owner was the Northern Pacific.

Twenty days elapsed. Still no car!

Whereupon the Harriman people, in accordance with number three of the "Per Diem" Rules for car service, made formal demand for the return of their car.

Thirty days passed without a sign of the lost car. And now, again in accordance with rule three, the Union Pacific notified the Northern Pacific that it was liable to a payment of seventy-five cents a day in addition to the regular per diem charge of twenty-five cents.

Three months slipped by. By that time the car service departments of both lines had grown so literary, and had acquired so deeply the letter-writing habit, that great sheaves of correspondence were swapped almost daily.

The Documents Grow.

Meantime that car had vanished, had melted away as if it had been a cake of ice in the warm waters of the flood; had disappeared as mysteriously as a card from the hands of a Hermann or a Keller.

Six months! Still no trace, though the railroad people pursued the still hunt conscientiously. The Northern Pacific, according to per diem rule seven, might long ago have reported the car destroyed (and hence put a stopper on the avalanche of correspondence, and, incidentally, on the per diem charge), if only they had unearthed even the smallest evidence of destruction.

But not even a remnant was discovered—not a bolt nor a board that could be identified as part of that particular car.

Nine months! No car! But pigeon-holes were choked to death with correspondence. The Hill car service men raged impotently at the failure of their sleuths to locate the missing car, and Harriman car service men made further demands, just as impotent, for the return of their property.

A year slid into history, and thirteen months. By this time the Union Pacific men were injecting sarcasm into their literary productions, meaning, in effect: "What sort of fellows *are* you, anyway, that your search for our car is as futile as that for Captain Kidd's treasure?" In this way the correspondence grew into reams.

Now, in the fourteenth month, the Northern Pacific men, blue in the face at being so long baffled, decided to make one last systematic search for that car, even if they could produce only its dead body. Right and left, men were sent, and north and south, to scrutinize every square inch of that part of Kansas near the flooded district, to hunt as a man hunts for a lost collar-button.

A Clue at Last.

One of the sleuths of the Northern Pacific, on the fourth day of the fourteenth month after the flood, spied some rusty car-trucks that were revealed by workmen in the process, who were removing the debris of a barn that had collapsed in the deluge.

The number on those trucks made the sleuth aforesaid whoop with joy. Here was part of the missing rolling-stock. The number was that of the car that was so badly wanted. And the trucks lay a quarter of a mile from the railroad track.

But the hunter was not satisfied. He wanted the *whole* thing. The other half, he bethought him, must be near. In casting his eye over the geography, he finally caught sight of the name of a patent cure for biliousness that was painted in large white letters on a black background, half a mile from the railroad track.

In his huntings and snoopings, he had passed that sign often. And as often he had ignored it as furnishing no clue to the lost car. Now, however, he recalled that the name of that patent medicine was emblazoned on the four sides of an improvised stable.

He sought the farmer who owned the nag that stood in the improvised stable.

"Where'd you get that stable?"

"Didn't get it. Just took it for my mare. It was once a box car, as any fool could see."

"You remember the car number?"

How It Happened.

"No! Hadn't more'n located it 'fore a man came along and give me four bits just for lettin' him give her a nice coat of paint along with them bilious cure words."

"But don't you recall any railroad sign on that car—a shield, for instance?"

"Shield? Right, I do, stranger! A shield, and in it was the word 'Overland.'"

"Found! Found at last!"

"Found? You lost something, stranger?"

"Yes. We'll trouble you to hand over that stable. We'll send men to get it."

Forthwith the "stable" and the rusty trucks were sent to the repair-shop. There the patent-medicine paint was carefully scraped away, revealing, sure enough, the number identifying the "stable" as the long-lost car.

In the middle of the fifteenth month from the time of its disappearance, that car, now shiny in a coat of real freight-department paint, and otherwise renovated, was delivered to the Union Pacific. And with the receipt for the car in their possession, the Northern Pacific car service men danced a jig to the tune of a comic-opera ditty entitled, "And the Prodigal Came Back."

A few days later, however, consternation reigned in the Northern Pacific car service office. A bill had been received from the Union Pacific for the rent of that long-suffering car—a bill for twenty-five cents a day for the first thirty days, and one dollar a day for each day in the rest of the fifteen and a half months that the Northern Pacific was responsible for the car.

And Then the Bill Came.

For the per diem rules permitted the Union Pacific to put in just such a bill, and it amounted to \$442.50.

A Harriman man told me that, in an effort to get square, the Hill men sent the farmer who had taken possession of the car for his mare a bill for \$442.50 for "a year's rent of stable." And that Harriman man had such a baby-blue eye, too!

Not only cars, but entire trains, have been lost. I know two stories of lost whole trains. For the first of these stories I am indebted to Mr. Rivett, car inspector of the Union Pacific. He and I, with Mr. Cotton, a Union Pacific land agent, were sitting together when he told about it.

It happened in October, 1906. A freight-train on the Burlington route left Omaha at eight o'clock in the evening, with orders to go to Plattsmouth, Nebraska, which is south of Omaha.

The despatcher responsible for the movement of that freight-train sat at his desk in Lincoln. To him the train was reported as arriving at Gilmore Junction, a station a little south of Omaha. A few minutes later he received word that the train had left Gilmore.

Ten minutes passed, and the despatcher should have received word that the train had reached or passed the first way-station south of Gilmore. But no such message came. Fifteen minutes passed, and the dearth of news from that train made the despatcher curious. He called up the agent at the way-station and asked if the Plattsmouth freight had passed. The answer came back, No.

Trying to Find a Train.

"Maybe he's let her get by without knowing it," thought the despatcher.

Forthwith he called up the second way-station south of Omaha, at which the train was now due. By that time twenty-five minutes had passed since the train had been swallowed up in silence. From this second way-station the answer came: "Know nothing of Plattsmouth freight."

On hearing this the despatcher was no longer curious; he was furious. Thirty minutes! Dead silence regarding that train. Forty minutes! The despatcher, now completely nonplused, and biting his pipe ferociously, called up the telegraph operators at all stations between Gilmore and Lincoln.

The answers were monotonously disheartening. Not one of the operators could give an account of the train.

"Great Scott! Where is that train, then!" cried the now blasphemous and ashy-faced despatcher. "I must stop every wheel on the division till I locate that train, or—"

Forty-five minutes had passed, and the despatcher proceeded to send the necessary orders holding up every train between Plattsmouth and Omaha. Forty-eight minutes! Forty-nine! Fifty! And then—

"Good Heavens!" raved the despatcher. "Has that train wiped itself off the map?"

Plainly, the Plattsmouth freight was lost. It had faded away like the smoke from the despatcher's pipe. What had become of it? Had it tumbled from a trestle into the darkness of a ravine, killing the entire crew? Or had it leaped from the tracks and continued its journey across the farms of Nebraska, the engineman unable to stop the runaway?

Fifty-one minutes, and—Oreapolis, a station near Plattsmouth, was calling the despatcher at Omaha.

"Plattsmouth freight, number —, waiting here for orders. New crew. Ran from Gilmore over Mop track, instead of over Burlington, without being aware of mistake."

What did he mean? The Burlington and the Mop (Missouri-Pacific) tracks parallel each other, not far apart, out of Omaha, to Gilmore, where they meet. We know that the despatcher received word of the train at Gilmore, and its departure therefrom. Then it apparently disappeared into oblivion.

Where It Had Been.

Now, at Gilmore, the Burlington and the Mop tracks separate after leaving the station, but continue south parallel with each other, though farther apart than north of Gilmore. Near Oreapolis they once more meet.

Well, then, what happened? At Gilmore a switch had been left open, and the Burlington train had crossed over to a Mop track and continued on the Mop track southward to Oreapolis, where it again crossed to its own track to continue the run to Plattsmouth.

As both train and engine-crews were new—it was their first run over the division—they were blissfully unconscious that they were playing in another fellow's back-yard, and that they represented danger and death in a run over the wrong track. The Mop side of this story is not known, but no casualties were reported.

When the train-despatcher had wiped the cold sweat from his brow he wired Oreapolis this order:

"Plattsmouth freight, go to Platts-

mouth. The crew then to proceed to Hades without return orders."

Railroad men have told me that this incident is one of the most extraordinary they ever heard of.

The Train That Hid.

My second lost train story was related by Dan Sullivan, Union Pacific district foreman for Wyoming, at Laramie, while we smoked the pipe of friendship in his office in the railroad yard.

One day a Union Pacific east-bound freight-train of twenty cars, with Andy Smith on the right of the engine, reached Tipton, Wyoming, and pulled into a siding to let passenger-train No. 4 get by. The passenger was east bound, and, as Andy knew, was right behind him.

Presently the flier passed Tipton O.K. Then Andy pushed his freight back on the main line and followed the flier. Past Red Desert he ran, and on to Wamsutter, where he pulled up at the station. Out rushed the telegraph operator, and cried:

"Where's No. 4—the flier?"

"She passed me at Tipton," replied Engineman Andy.

"The deuce she did!"

"Sure."

"Well, then, you must have run right *through* her on your way here, for she hasn't passed *this* station—stake m' life!"

"You're dreamin'. The flier passed me sixteen miles back, at Tipton—stake my life!"

"You're a fool, Andy. Hustle onto the siding, quick! That flier's still behind you."

And Andy Smith, sorely puzzled at the insistence of the operator, backed into the siding.

"But as that flier sure passed us at Tipton," he said to his fireman, "and as I came right on behind her and didn't strike her, and as that feller says she hasn't passed here, then where in all this gol-dinged world is she?"

Just then Andy heard the shriek of a locomotive *behind* him, the shriek of a train coming east toward Wamsutter. Andy could not believe his eyes. It was the flier. It stopped at the Wamsutter

Station, and Conductor Mills explained to the dazed operator:

"Had a hot box. Discovered it after passing Tipton. Drew into the siding at Red Desert, half-way between Tipton and here, to get off the main track till we cooled the box. On the siding we stood on the off-side of the coal-chute, hidden from the main track. That's why Andy Smith got by us without seeing us."

And from that day, Andy Smith was known as the only engineman on the Union Pacific who could pass the flier with a freight-train, with both trains on the same track and going in the same direction.

Now for the story of how a car disappeared from the middle of a moving freight-train, despite the vigilance of the "boys." At the time of this tale, link and pin couplers were used.

It was Engineman Sullivan's freight-train of twenty-four cars. That is, Sullivan had twenty-four cars when he came over the "backbone of America," at Creston, Wyoming, where a sign-board informs tourists that they are at the Great Continental Divide.

Getting Out of the Train.

But when the train got to Rawlins, a division end twenty-nine miles from the Great Divide, the crew counted their cars and found—only twenty-three.

A car had been lost! Lost from the very middle of the train! For they found that the train had parted in the middle. But the hind part had followed on down the hill so close to the fore part that the break had not been noticed.

"Do you mean to tell me that a ear-snatcher could steal a car from a moving train?" cried the conductor. "You mean to say an eagle lifted that car bodily out of my train when we were running twenty miles an hour? You insist that a zephyr whipped out the pins and uncoupled a loaded coal-car at both ends and then wafted the car away into the ether?"

But, just the same, the conductor was obliged to report: "One coal-car missing." Then began a search for the missing car by all the section foremen and their gangs between Rawlins and the Great Divide. Two days went by, and

three, and four, and still no tidings of the lost car.

On the fifth day Engineman Sullivan was again pulling freight over the Great Divide. He came to a place where the tracks skimmed the edge of a deep gully. On the brink of the chasm he spied some lumps of coal, and he stopped his train. Far down into the gully he peered.

"Well, I'm darned!"

The conductor hurried forward and joined Sullivan in peering down into the gully. "Well, I *am* darned! But what sticks me is how she uncoupled herself at both ends and dropped out of the ranks like a tired soldier. Say, Sullivan, this is sure enough the great *divide*!"

Tale of Two Strays.

Here's the story of two cars that strayed from the fold in the dead of night. Conductor Tom Wilkinson was furious because his train had stopped just beyond a curve midway between Kenesaw and Hastings, Nebraska, his being a Burlington freight-train, and his knowledge of the schedule telling him that the express was not a thousand miles behind him. So Wilkinson left his "way car" and hurried to the engineer, wrathfully inquiring, "What's up?"

"Cars off the track," replied the engineman.

"Bosh! Move on."

"I tell you there are cars on the ties. As we came around that curve I saw cars leanin' way over and sparks comin' from the wheels."

Conductor Wilkinson looked disgusted.

"All right, Wilkinson," said the engineman. "I'll move on—but they *was* leanin' far over, and they was emittin' sparks."

The freight moved, but not the whole train. The train had broken in two. They "picked up" the rear part, then proceeded to Lincoln. There, at daylight, Conductor Wilkinson came to the engineman, saying:

"Did you say *sparks*? Well, then, there's two cars must have burned up, wheels, trucks, and all; because we *lost* two cars somewhere, somehow. And the old man is red-headed. Says you got to pull the wrecking-train back and find those two cars."

That night the engineman pulled the wrecking-train into Lincoln on his return from the hunt—and at once sought Conductor Wilkinson, saying:

"Well, we *found* your two cars."

"Burned to a crisp?" asked Wilkinson. "No? Then, what about those sparks?"

"They fell down the embankment at that curve between Kenesaw and Hastings, where we broke in two."

"Yes, yes! But about those sparks? Where does the conflagration come in?"

"There ain't none. The ties on that curve were all splintered. That shows the cars first off derailed themselves, and the violent contact of steel on hardwood—"

"What'll you have on me?" interrupted Wilkinson.

An Athletic Car.

The last story of all is of the "Jumping Car," a car that could jump four feet into the air, like a bullfrog or a kangaroo. The tale of this extraordinary car was related to me by Mr. Cushman, of Grand Island, Nebraska, formerly a brakeman on the "Alphabet Road"—the Chicago, St. Paul, Minneapolis and Omaha Railway.

Cushman's train, a freight, all stock-cars and all loaded, was doing its eighteen miles an hour over the Alphabet Road, bound toward Omaha, when it broke in two. After hitching the two parts together again, the train moved on. At Omaha, when they "counted up," a car was missing. Lost! But where or how was a deep, dark mystery.

Next day the "Alphabet" company sent Cushman back over the line to find the missing car. He got off at a station about twenty miles out of Omaha—near

where the train had broken in two the night before. As he walked up the track he met a farmer whose property bordered on the right-of-way.

"Got four new hogs to-day," said the farmer.

"You don't say! What'd you pay for 'em?"

"Nothing! Donated!"

"By whom?"

"Don't know. Donor anonymous."

"Let's see 'em."

Cushman looked at the gift hogs. All four had chunks of flesh gouged out of their bulk, and were more or less bleeding. He tramped on thoughtfully to the next farmhouse, where the farmer remarked:

"Looks like folks don't want their own hogs no more. Some one made me a present of six this morning."

Cushman now tarried not nor paused in making a bee-line back to the railroad track. On the way he passed no less than a dozen hogs, all straying around in an aimless, homeless, uncertain manner.

Finally he came to a place where the railroad track ran through a cut. At the top of the embankment, at the edge of the cut, lay a car. In it were a lot of hogs, all dead. And the railroad tracks, where they ran through the cut, were fully four feet below the level on which the hog-car stood.

Cushman hurried back to Omaha, and said to his conductor: "Say, boss, I'm going to quit railroading. It's too full of the miraculous for me. Think of a hog-car cutting itself loose from a freight-train and jumping—*jumping!* I say—*four* feet, four whole feet *up* out of a cut, like a toad trained in a circus!"

"I've seen a loaded hog-car that did that stunt. Seein's believin'! And hereafter I ain't pohp-pohin' miracles!"



WITHOUT LIGHTS.

BY J. AUBREY TYSON.

They Turn from the Dead to Find the Living's Gold.

SYNOPSIS OF PREVIOUS CHAPTERS.

FRED ERSKINE visits the general manager of the Chicago, St. Louis and Western Railroad, Andrew Warrington, with a letter from his father, who was an engineer on the engine Warrington fired. It is understood that when Fred had graduated, Warrington will place him. He now finds that he is unable to do so. Bonds of the value of half a million dollars have been stolen, and suspicion points toward Warrington's son. Warrington, senior, is suspicious of the motives of Montresor, who has gained the friendship of Joe Warrington, and apparently of Louise, Warrington's daughter. The old man gives the task of solving the disappearance of the bonds to Erskine. He is to work absolutely in the dark, receiving no recognition from Warrington, using any means he wishes. He is to take Louise to the opera that night, but Louise, suspecting him, has the coachman drive to Lincoln Park, and there Fred is assaulted by a man whom he believes to be Montresor. Erskine is walking on the lake shore, when he meets McGrane, the discharged coachman of the Warringtons, who is very loyal to Miss Warrington. Erskine succeeds in convincing him that he is Miss Warrington's friend, and the coachman agrees to work with him. Others arrive, and Erskine gathers that it is their intention to kill Warrington. He meets the young fellow, who agrees to confide in him, but as Erskine leads the way from the shore Joe Warrington is mortally stabbed. During his last moments he discloses to Erskine that the bonds are being expressed by Montresor to Tacoma, in a typewriter machine-box. Erskine and Barney decide to leave the city and follow up the box containing the bonds. They arrive at Wapita Falls. Barney sees Louise and her mother alighting from the train, and imparts this intelligence to Erskine, who, meanwhile, has discovered the box labeled for Tacoma. Securing tickets for the train on which this box has been shipped, he finds the two women on board, and visits them in their stateroom, where he tells them of Joe's death.

CHAPTER XIII.

A Leap Into Darkness.

LIKE a man in a trance, Erskine returned to his own section in the Pullman, where he sank stiffly in the seat opposite McGrane. The Irishman, looking at him curiously, was startled by his pallor and the dazed look in his eyes.

"Anything happened, sir?" McGrane asked, leaning forward and speaking anxiously.

By a gesture Erskine directed the Irishman to sit beside him. When McGrane did this, the Altoona man addressed him quietly:

"Barney, are you a drinking man?"

The face of the Irishman fell. "Why, I take my drop, sir," he answered sullenly.

"Did Mr. Warrington charge you with drunkenness on the night he dismissed you from his service?"

"When he taxed me with not reporting to him all the places I took Miss Warrington to, I answered him a bit sharply, and he said I had been drinkin', he supposed. I told him I hadn't had a drop that day, which was true, sir. Six months ago I made a bad break or two, but he forgave me those. No, sir, he didn't fire me for drinkin'."

Erskine nodded thoughtfully, and leaned back in his chair. The Irishman continued to regard him quizzically.

"Some one been knockin' me to you?" McGrane asked apprehensively.

"Some one has just told me that you had been discharged for drunkenness—that's all," Erskine explained.

The face of McGrane grew purple.

"And she said that to you—of me?" he muttered. Then, after a pause, he added: "And did you tell her that— that something happened after she saw her brother last?"

"Yes, but she does not believe me."

"But, surely, sir—"

Erskine laid a hand on the coachman's arm. "There—that will do, Barney," he replied, interrupting. "She will communicate with her father at once, and I dare say he will tell her all. Meantime, we have much to do. For the present the two ladies we have seen must go their way alone. Be careful to mention no more names."

"But we will save her—Miss—Miss—"

"Yes, Barney, we will save her if we can."

The Irishman, leaning forward, lapsed into moody silence. Erskine gazed out of the window. For more than an hour no words were exchanged between them; then from one end of the car came the voice of the porter, informing the passengers that dinner was ready.

The Irishman glanced at Erskine inquiringly. The Altoona man shook his head negatively.

"No, Barney, we must keep out of there to-night," he said.

As he spoke, Erskine drew out a paper lunch-box and passed it to McGrane, who was soon philosophically munching a ham sandwich.

In another hour twilight fell, and shortly afterward the train halted at Bernardville, the first stop in the State of Washington.

As the train stopped, a sudden thought seemed to strike Erskine, and he rose quickly; then made his way to the station platform. Looking now toward the other end of the car, he saw Louise Warrington and her mother leaving the train.

The fact that both ladies carried suitcases indicated that they had no intention of returning to the train. This led Erskine to infer that they purposed telegraphing to Andrew Warrington concerning Joseph, and would wait at Ber-

nardville for a reply, boarding the Cascade Limited, which would be along a couple of hours later.

This action on their part appeared reasonable enough; and it was not improbable that, upon hearing from Andrew Warrington, they would return with as little delay as possible to Chicago. But there was another possibility to be feared. Their action in leaving the train at Bernardville might be part of a prearranged plan.

The Cascade Limited was due to stop at Bernardville in two hours. Would it bring Montresor?

If Louise and her mother joined Montresor, they would, of course, report to him the nature of the interview in the Pullman stateroom.

Their faith in the Englishman apparently was still unshaken. Assuming that Warrington did telegraph to them that Joseph had been murdered, what evidence had he to connect Montresor with the perpetration of the crime? The only witnesses to the assault upon the ill-fated young man were Erskine and McGrane, and these had made no report of the matter, either to the elder Warrington or the police.

More than this, would not Miss Warrington at once give public expression to her suspicion that her brother was killed by Erskine and McGrane, who mistook him for Montresor? A cold sweat broke out on Erskine's forehead, and, tottering like a drunkard, he returned to his seat in the car. There he found the Irishman, with his face at one of the windows, and scarcely able to restrain his excitement.

"You've seen 'em, sir?" he asked.

Erskine nodded. "Yes," he said.

"Well, they've left the train, and you ain't goin' to foller them?"

"No," Erskine muttered. "Haven't I told you that we have more serious work to do than to trail these women?"

The face of McGrane was now as white as Erskine's own, as he replied in a shaking voice:

"That's serious enough for me, sir; and, by Heaven, it's the work I'm goin' to do before I tackle any other. Montresor has done for Mr. Joseph; and if he's got any game on against Miss Warrington, Barney McGrane ain't the man to stand by and see him win it."

Erskine seized his arm. "What are you going to do, Barney?" he asked.

"I'm goin' to do what you say you ain't goin' to do. I'm goin' to trail the women; and you know, as I know, sir, that that there trail is goin' to lead me to Montresor."

Erskine's face grew harder, and there was an ominous flash in his eyes as he retorted:

"It will lead you to the gallows."

The Irishman nodded vigorously. "Aye, sir, that may be. I'll not stop at murder if—"

"You already are charged with murder."

McGrane stiffened suddenly and looked at Erskine with an expression in which incredulity and alarm were mingled.

"Already charged with murder?" he repeated wonderingly.

"Yes. Miss Warrington believes that you and I killed her brother, who, in the darkness, we mistook for Montresor."

The dazed look deepened in the Irishman's eyes.

"Now, sit down," Erskine commanded sharply.

They seated themselves together. McGrane's gaze was riveted on the face of his companion. Erskine glanced sharply around the car, fearful lest the gestures of the obstreperous Irishman had been observed by other passengers.

He saw that only four other persons were in the car, and that these were giving no attention to him or McGrane, whose words had been spoken quietly, despite his agitated manner.

"She can't believe that of me," the Irishman protested, shaking his head dubiously.

"She has said she does. - It is for the purpose of communicating with her father that she has alighted here, and you forget that her father does not know the truth. We are the only persons who saw the tragedy, and we have the appearance of having fled from the city.

"That fact will be used against us. A word from Miss Warrington may result in our arrest before we have a chance to put up the fight we have come out here to make. We cannot succeed unless you keep your head and stop discussing these matters as we are doing now."

As the spirit of insubordination left

McGrane, an expression of apprehension settled on his face.

"I don't understand it at all," he muttered penitently, "but I won't bother you with no more questions."

"That's better, Barney," Erskine answered wearily.

Five minutes later the train was again in motion. Erskine and McGrane sat in silence. The Irishman was sullen and, as the hours passed, it was apparent to the watchful young railroader that he was growing more and more ill at ease.

Erskine now began to appreciate the fact that he had erred in not giving his companion more of his confidence, and yet he knew that few opportunities had been afforded him for doing so. Railway stations and the seat of a sleeping-car were dangerous places for such explanations as he had to give; and, though he had confidence in the Irishman's courage, he was not altogether satisfied regarding his discretion.

Shortly before nine o'clock the porter asked Erskine if he was ready to have the berths of his section made up for the night. The Altoona man nodded, and he and McGrane made their way to the smoking compartment. There they found four of their fellow passengers playing cards.

Erskine and his companion watched the game in moody silence for several minutes, then they returned to their section. Here they found that the beds had been made up, and that the curtains had been drawn.

On the way to Wapiti Falls, McGrane had occupied the upper berth at night, and had removed only his coat, vest, necktie, collar, and shoes before retiring. He was now about to draw off his coat, when Erskine laid a restraining hand on one of his arms.

"No, Barney," the Altoona man said quietly. "Crawl in as you are, and wait."

The Irishman nodded sullenly; then, fully dressed, he climbed into the upper berth. Erskine glanced at his watch, stretched himself on the lower berth, and raised the shade that had been drawn over one of the windows. Leaning on one elbow, he continued to look out into the night.

The train, having passed through the

foot-hills, was now within the shades of the Cascades themselves. The night was clear; and by the light of the moon, which was in its first quarter, Erskine was able to see with considerable distinctness the outlines of the dark mountains which the train was passing.

At length the shriek of the locomotive whistle rose above the monotonous rumble of the wheels, and he became conscious of the fact that the speed of the train was abating. Moving cautiously, he slipped out of his berth and drew from beneath it the two suit-cases with which he and his companion had left Chicago. These he laid on his berth; then, once more, he peered out of the window.

From one end of the car came the call of the trainman:

"Two Rivers—Two Rivers!"

Erskine quickly raised the window through which he had been looking, then he thrust the suit-cases out into the night. This done, he lowered the window, crawled out of the berth, stood upright, and laid a hand on the shoulder of the recumbent McGrane.

The Irishman started up suddenly. "Rear platform, Barney—be quick!" Erskine whispered sharply.

In another moment the Irishman was on the floor beside him. Between the curtained sections Erskine, moving rapidly, led the way to the rear platform of the car. Arriving there, the two men found themselves alone.

"We've got to jump it," Erskine muttered. "The train is slowing down, and there is no danger if you leap clear of it. When I open the door, get out at once. I'll be right after you."

The platforms of the train were vestibuled, but in a moment Erskine had the door open.

"Go!" he muttered.

The Irishman swayed a little as he descended the steps. On the bottom step he paused for a second or two, then he leaped. Erskine followed him.

CHAPTER XIV.

A New Peril.

THOUGH Erskine had taken a desperate chance when he decided that he and McGrane should leap from a

moving train, in the darkness, and at a place which he never had seen in daylight, he found luck was with him. His feet landed on a low, gently sloping embankment of sand and gravel; and, though he rolled over a couple of times before he succeeded in getting to his knees, his injuries proved to be no more serious than a few slight bruises and scratches.

He quickly scrambled up the embankment to the track, and there paused and listened. All was still; and, owing to the fact that the moon was obscured by a mountain which shadowed the track, he was able to see only a few paces away from him. A low whistle, however, soon elicited a growl from a point about a hundred feet distant.

Erskine set off at an easy trot in that direction, and in a moment he came in sight of McGrane, who was limping toward him along the track.

"Are you hurt, McGrane?" Erskine asked anxiously.

"I'll tell ye better, sir, when I find all me pieces," the Irishman grumbled. "'Twasn't till you whistled that I began to know the difference between Barney McGrane and a busted gravel-car. I barked a shin and twisted a shoulder; but there's no real damage done, I guess. And now which way is which, sir?"

"We'll have to walk back after our suit-cases, which I threw out of the window before we jumped," Erskine explained.

"Is some one after us?" the Irishman asked apprehensively.

"I'm afraid so, Barney," the Altoona man replied gloomily. "Several hours have passed since Miss Warrington alighted at Bernardville, and by this time she doubtless has had from her father a telegram informing her of her brother's murder.

"If she carries out the threat that she made to me, she probably has telegraphed on to Two Rivers that the murderers of Joseph Warrington are on the West Coast Express, and, in that case, the train will be searched. We are well out of it, but must have a care how we pass the station—for pass it we must—and we can't get by it too quickly."

"Have we got to get to the other side of it?"

"Yes. When it is found that we have jumped the train, a search doubtless will be made for us in this direction. Two Rivers lies at the entrance to a narrow defile between two mountains, and there is no way around it. We must be on the other side within twenty minutes."

Without further ado, Erskine again broke into a trot in the direction of the place at which he had thrown out the two suit-cases. McGrane followed him more slowly.

In about three minutes Erskine came upon one of the cases, and a short distance beyond it he found the other. Carrying these, he retraced his steps until he met McGrane.

The Irishman now had recovered, in some degree, from the lameness that had resulted from his fall, and, relieving Erskine of one of the suit-cases, he trotted along at his heels.

In the distance the lights of Two Rivers were plainly visible, and the end lights of the West Coast Express were seen to be in front of the station. Erskine rightly inferred that had it not been for the fact that it was necessary for the locomotive to take water at this point, the train would not have been scheduled to stop in such a sparsely settled spot.

Proceeding quickly, the two men came at last to a bridge which spanned one of the two mountain streams which were responsible for the name of the town. This was narrow, and was soon crossed. Erskine and his companion were scarcely on the farther side of it, however, when the train which had brought them from Wapiti-Falls was seen to be again in motion. In a couple of minutes its end lights had disappeared from view.

The two men now slackened their pace, and as they drew nearer the cluster of lights which marked the location of the station, they saw that the town was on the right of the track, and that on the left of the railway there was a steep slope to a shallow but swiftly running river. Down this slope Erskine soon led the way, and, stumbling among the stones that lay along the margin of the stream, the two men continued along until they were well past the station.

At length Erskine halted, put down his suit-case, and listened. Save the slow

puffing of a stationary locomotive somewhere on the embankment above them, all was still.

Erskine turned to his companion. "Well, Barney, for the present we are safe enough, I guess," he said. "The train wasn't here longer than five or six minutes, so it looks to me as if no attempt has yet been made to find us. In this case, a search will be made at the next stop."

"Miss Warrington ain't goin' to charge us with murder!" McGrane said doggedly.

"She intimated that she would, and we must take no chances," returned Erskine.

There was a pause; then McGrane asked: "And did you leave the train just because you was afraid of gettin' arrested?"

Though the Irishman had tried to address his companion respectfully, there was something in his tone that plainly indicated that his employer no longer enjoyed his confidence.

"No," Erskine answered quietly. "It was here that I planned to leave the train. That plan was made before we left Wapiti Falls."

"Well, we don't seem to be any nearer Montresor, for all the plannin' that you've done," grumbled the Irishman, who again manifested a tendency to wax insubordinate.

"Montresor is getting nearer to us every minute, and, if we do not make haste, he will be on us before we are ready for him," Erskine muttered.

McGrane's spirit rose. "We are to meet him here?" he asked.

"No," Erskine answered sharply; "and unless we are going to play into his hands, we must avoid him for the next four days, at least. If we are recognized by Montresor, or any one else who has seen us before, while we are engaged in the work which is cut out for us to-night, we will have a still more serious charge confronting us than that which makes us responsible for the murder of Joseph Warrington."

"Eh!" exclaimed the bewildered Irishman. "And what charge is that?"

"Train-robbery," replied Erskine gravely.

"Train-robbery!" muttered McGrane.

"In the name of Heaven, sir, are ye mad? We ain't robbed no train any more than we killed Mr. Joseph."

"But we will," said Erskine confidently. "Before we go farther, I will make the situation a little clearer to you. The Cascade Limited, the fastest flier this side of the Mississippi, will pass Two Rivers in about an hour from now. On that train, which left Chicago after we left it, Montresor doubtless is a passenger."

"With him, for the present, we have nothing to do. In the express-car of that train, however, is the box which I pointed out to you in the baggage-room at Wapiti Falls."

"That box contains papers which were responsible for the murder of young Warrington, who, dying, believed that I would restore those papers to their rightful owner. When those papers are returned to the place from which they were stolen by—by Montresor, we will strike at the Englishman, but not before."

"Then me and you must hold up the flier?" McGrane asked thoughtfully.

"Yes."

"While it's passin' Two Rivers?"

"No. When the flier gets to Two Rivers we must be ten miles to the west of here, near the entrance to the Dumb-bell tunnel. The Dumb-bell consists of two round mountains, joined by a straight ridge which gives to the combination the form of a dumb-bell. The tunnel runs through the ridge, and before the flier enters the tunnel we must have the box we are after."

"But how are we to go those ten miles, sir?" asked the Irishman, whose manner had become respectful again.

"Somewhere along here we will find a section-house—a place where laborers who work on this section of the line keep their tools and hand-car. We must get the hand-car. As we approached the town, I saw that there was no section-house on the other side; so, I dare say, we are not far from it now. Now, as we seem to have cleared the town, let's climb the embankment again."

The two men picked up the suit-cases which they had set down, and then they proceeded to work their way up the embankment to the track. Arriving there, Erskine halted and looked around him

cautiously. The town lay on his right. On his left he saw a small building beside the track.

With a low exclamation of satisfaction, he started toward it. McGrane kept close at his heels.

As Erskine had surmised, the building proved to be the section-house of which he was in search. Beside it, on a little runway, was a hand-car, secured to a post by a padlock and chain. Erskine knelt down beside the chain, and for a few minutes his companion heard the scraping of a file.

"Ye were all ready with the tools for the job," muttered the Irishman approvingly.

There was a great deal connected with this affair that was a mystery to McGrane, but from time to time the conviction had been forced upon him that the leader he had been following so blindly really was working out a carefully formulated plan. Now and then, however, a suspicion would enter the Irishman's mind that Erskine was working in his own interest, rather than in the interest of the Warringtons. So far as McGrane was concerned, his interest centered in the capture of Montresor and the safe return of Louise Warrington to her Chicago home.

"All right, Barney," said Erskine, rising.

"Is she loose, sir?" asked the Irishman.

"Yes. Now help me to get it on the track."

In a couple of minutes the hand-car had been run out to the track, and on it Erskine placed the two suit-cases. This done, the two men mounted to the platform, and Erskine bade his companion take hold one of the bars.

The young railroad man grasped the other, and the westward journey was continued. Both Erskine and McGrane were men of considerably more than ordinary strength, and as they bent to their task the car moved onward with rapidly accelerating speed.

For more than a mile beyond the town the grade was fairly level; then it began to rise gradually, and the speed of the car began to abate, despite the increasing energy the two men were putting into their work. At length, however, Erskine,

glancing anxiously ahead, saw that the end of the grade had been reached, and that they were approaching a decline, steeper than the one they had just ascended. For about a quarter of a mile the track lay straight ahead of them, then it disappeared at a curve around the mountainside.

"Let go the bar, but get a good grip on the car," called Erskine to McGrane as he saw what was before them.

The Irishman did as he was directed, then cast a glance over his shoulder.

"She'll go by herself?" he asked as he looked down the grade.

"Faster than we ever could drive her," Erskine answered; then, craning his neck to get a better view of the track, he added: "Hold fast, for your life, Barney!"

A sinking feeling now began to come over McGrane as the hand-car, increasing its speed at every yard, dipped at a sharper angle and went clattering down the grade. Both men lowered their heads and grasped more firmly the metal-work below the rapidly rising and falling handle-bars.

The flying car rounded the curve with a jolt that fairly took away the breath of the clinging men, and then shot downward on a grade that was even steeper than the one above the curve. Down, down it flew along a winding course—clattering and bounding in a manner that made the swaying Irishman feel as if he was mounted on a bucking bronco.

Erskine, with set teeth, was peering ahead of him with anxious eyes when there came to his ears a sound that brought his heart to his throat and caused a cold perspiration to issue from his pores.

It was the whistle of an approaching train!

CHAPTER XV.

The Brink of Disaster.

FOR a moment Erskine's wits forsook him. If the whistle he had heard was that of an approaching train, he felt that he and his companion were doomed.

The extension of the Chicago, St. Louis and Western from Wapiti Falls to Tacoma had been constructed only a few years before, and between Two Rivers

and the Dumb-bell a single track had been regarded as sufficient for its present needs.

A careful study of his time-table had assured Erskine that no east-bound passenger-train was due at Two Rivers for the next five hours, and he had reasoned that no freight would be able to pass the West Coast Express, which had left Two Rivers only a few minutes before.

The whistle which he had heard seemed to be too near to be that of the West Coast Express, which, speeding on ahead of the Cascade flier, and with the grades in its favor, must now be five or six miles distant. Was it possible that the express, meeting with some accident or obstruction, had stopped, and was just getting under way again? Or, back here among the mountains, was there a siding on which a freight had lain to await the passage of the hurrying passenger-train?

The whistle, apparently, failed to disturb McGrane, who had no other thought than to retain his grip on the clattering, jolting and swiftly speeding hand-car. Erskine, however, listened intently. The whistle reached his ears again.

This time there was no mistaking its significance. It was the signal of a freight locomotive calling for brakes!

Gritting his teeth, Erskine looked around him wildly. To jump from the rushing hand-car meant instant death, and yet to remain on it for another five minutes would seem to be scarcely less disastrous.

Erskine, who thus far had thrown prudence to the winds in his attempt to get to his destination as speedily as possible, now reached for the lever which controlled the brakes of the hand-car. Drawing this back, he braced his feet against the steel base of the handle-bars. Even amid the clatter of the wheels he heard the brake-shoe swish against the swiftly revolving metal disks beneath the car; but there was no accompanying diminution of speed.

And now the Irishman, suddenly becoming aware of the strenuous efforts which Erskine was making, took alarm.

"Something wrong, sir?" he gasped, as the car, taking another curve, almost swung from the track.

"Hold on—till I call—then jump!" cried Erskine brokenly.

"The car will do that, I'm thinkin'," the Irishman retorted.

"Let us hope to Heaven it does. There is a train ahead of us, and—"

He was interrupted by the prolonged shriek of a locomotive. All doubt was now removed from the mind of the man who was desperately straining at the brake-lever.

The unseen locomotive was rapidly drawing nearer. A new idea now entered Erskine's mind.

"Here, Barney—here!" he called.

In a moment the Irishman was beside him.

"Get hold of this lever and brace yourself—so," the Altoona man directed.

McGrane understood, and acted promptly.

Erskine, rising on one knee, seized one of the leaping handle-bars. This was of wood, and Erskine had observed that it lay loosely in the rings that held it. In a second he had it free.

"Now, look out for yourself, Barney," he shouted as he crawled to the front of the car.

As he glanced ahead of him he saw the faint glow of an advancing light. Still gripping the stout wooden bar, he leaned over the forward end of the car. With his right hand he clung to the projecting wooden handle which railway men use in getting a hand-car on the track. With his left hand he dropped the wooden bar across one of the rails.

What happened in the course of the next two minutes neither of the men ever knew. Erskine did not lose consciousness, but his sensations were those of a strong swimmer who suddenly finds himself in the grip of a rock-pronged whirlpool.

Bruised, bleeding, and unable to draw breath, he rose to his knees. A thousand lights seemed to be gleaming before his eyes, and a prolonged sound like the roll of distant thunder was in his ears.

In another moment he was breathing again—but with considerable difficulty—and he knew that the sound which resembled thunder was that made by the moving wheels of a train of freight-cars which were slowly passing in the gloom.

With a rapidly beating heart Erskine staggered to his feet. He was now overcome by a dread that the train would stop—that the engineer had run down

the hand-car, and would halt in order to learn the extent of the injuries of the victims.

Too shaken and lame to be able to fly from the spot, Erskine prayed that he might be left alone. All too slowly the train moved on; but it did not stop, and soon the end lights of the caboose were flashing in Erskine's eyes as he crouched again beside the track.

Farther and farther away moved the lights, but it was not until they disappeared around a distant curve that he ventured to rise to his feet and look around him.

Gasping, and with his temples throbbing, Erskine staggered up the embankment to the track. Halting between the rails, he listened and looked searchingly from right to left. All was still. In the darkness he was unable to see anything of McGrane or the hand-car.

The game which he had been playing seemed lost to him now. Each moment was valuable, but without his companion and his lost suit-case he could do nothing.

For several minutes he stood motionless and silent; then, raising his voice, he called hoarsely:

"Barney!"

There was no answer, and, a prey to feelings of despair, Erskine tottered weakly along the track in the direction in which he had seen the lights of the freight disappear.

He ran on for nearly a hundred yards without seeing any sign of his missing companion or the hand-car; then the idea occurred to him to look for them in the other direction.

As he turned, he saw that the track appeared to be neither up nor down grade. His strength was coming back to him now, and he moved more quickly, calling to McGrane as he ran.

At length, thrilling with surprise and satisfaction, he heard a voice reply to him.

"Here!" it cried.

A few moments later he came to the Irishman, who was standing ruefully beside the track.

"That was a narrow squeak, sir," said McGrane mournfully.

"Have you found the car?" asked Erskine.

"Not me, sir," the Irishman replied.

"One of the suit-cases landed on me as I rolled down the embankment, and I've got that here; but may the devil take me if I ever want to see the likes of that summersetin' car again!"

"Which suit-case have you got?" Erskine demanded, snatching it from him impatiently. Then, as he stooped to open it, he added: "Find the other one."

McGrane turned away, grumbling.

In a moment Erskine had the suit-case open. As he thrust a hand among its contents, he promptly identified it as his own. Scarcely had he closed it when he heard the voice of McGrane.

"I've got it, sir."

"The other suit-case?" Erskine called.

"The hand-car."

"Never mind the car," cried Erskine. "Get the other suit-case if you can."

He hurried on to the place from which the voice of his companion had come.

There he found the hand-car, half-way down the embankment. McGrane, however, had disappeared; but Erskine heard him call: "I've got it."

When Erskine found the Irishman again, he struck a match and looked at his watch.

"It's all right, Barney," he said, with a note of jubilation in his voice. "We have twenty minutes to spare. There's another up grade ahead of us, and in the course of the next quarter of an hour we must get as near the top of it as we can."

With a lighter heart, he set off at a trot, with his companion close at his heels.

Maintaining a steady gait for the next ten minutes, Erskine at length found himself near the top of the grade. There he stopped and listened.

No sound broke the stillness of the solitude. The Irishman had disappeared.

Erskine called his name.

"Coming," shouted McGrane from a point well down the grade.

Erskine stooped beside the track and opened the suit-case he had been carrying.

From this he took two small tin cylinders, two cartridge-belts and revolvers, and two black masks.

(To be continued.)

DOUBLE-TRACK THE SANTE FE.

If This Rumor Materializes It Will Practically Mean a New Trans-continental Railroad.

IF the floating rumors, which have been humming around the local general offices of the Santa Fe are true, the entire main line of the Atchison, Topéka and Santa Fe from Chicago to Los Angeles will be double-tracked. The rumors are being followed up with plans preparatory to the mammoth undertaking.

To double track the Santa Fe means building a new transcontinental railway over 1,600 miles in length. It will also mean the first attempt of this kind ever contemplated or thought of in railway circles. It will mean a train service from coast to coast that will rival the dreams of the magnates for years. Furthermore, it will mean an expenditure of millions of dollars both in the active construction, and in the purchase of equipment and terminal facilities.

At the present time the Santa Fe is severely taxed for the care of passenger and freight traffic. The traffic between southern

California and the East is enormous. The single track cannot stand the pressure, and even with the careful and experienced ingenuity of high-paid train despatchers, the road officials are not able to put the trains over the road as the traffic demands. There is only one way to solve this problem—and that is another pair of steel rails running alongside the present pair.

At this time the Santa Fe has several stretches of double-track in good use—a use that will serve as a connecting link of single lines. For instance, from Albuquerque to Winslow, the road now has a double-track, one being the main line, and the other the Belen cut-off. This can easily be improved into a double main line. From Chicago to Newton, a distance of 600 miles, the road is practically all double-tracked. Then there are various other short spurts which have been doubled on account of the congestion at those points.



The Railroad Man's Brain Teasers.

**Puzzling Problems that Will Sharpen the Mind and,
Perhaps, Help You In Your Work.**

AMONG a dozen others from various parts of the country, we have received the following from Mr. Niles Searls, of San Francisco:

The X. Y. Z. Company was trying out a new freight-engine on a perfectly straight piece of double-track road. There was a string of cars attached, which made the train measure exactly one mile, from front of engine to rear of caboose. The train was crawling along at a constant speed. The head brakeman started from the front end of the train, on a speeder, and rode to the rear end; turned around and came back to the front end, arriving just as the train had moved its own length. How far did the brakeman travel? All speeds supposed to be constant, and no time lost in making the turn.

Also this one from Mr. H. R. Middlebrook, Tacoma Park, D. C.:

Assume a steel band to be shrunk about the surface of the earth at the equator (circumference 25,000 miles). Cut this band and insert 36 inches more, and reweld it, thus making its length 25,000 miles, 36 inches. How far away from the surface of the earth will it be all the way around?

The answers will be published in our July issue.

Answer to May Puzzle.

12.58 P.M. Second floor. Nos. 1, 2, and 3, going up; No. 4, going down.

We Want Some New Puzzles.

WE want some new puzzles, boys, and we don't know how we can get them unless you send them to us. We are so busy keeping on the main line and watching the lubricator and the gage that we hardly have time to think out brain teasers—and, perhaps, if we did you would only give us the merry ha! ha!

So it's up to you, boys. Put on your brakes for a few moments, rest your sand dome in your left hand, and with the right dash off something that will make us all sit up.

BUT—don't send in any teasers that *cannot* be solved, and don't send in any without the correct solution.

Who will be the first in?

The Sunny Side of the Track.

What the Busy Joke-Smiths of Our Esteemed Contemporaries Have
Turned Out Lately in the Hope of Making
Us Laugh.

A POLYGAMOUS DIRECTOR.

ONE of a party left his corner seat in an already crowded railway-car to go in search of something to eat, leaving a rug to reserve his place. Returning he found that, in spite of the rug and the protests of his fellow passengers, the seat had been usurped by a well-dressed woman. With flashing eyes she turned upon him:

"Do you know, sir, that I am one of the directors' wives?"

"Madam," he replied, "were you the director's only wife I should still protest."—*Chicago Socialist.*

A LARGE PARTY.

PETER F. DAILEY, the comedian, was a man of imposing personal dimensions, a fact he once made use of to the disgust of a railroad conductor.

Delayed at a small station, where the through train for New York would not stop for the next twenty-four hours, he wired the superintendent at the station below:

"Will you stop at Lonelyville for large party at 9 P.M.?"

The answer came: "Yes, will stop train."

When the express pulled in, Mr. Dailey started to board a car.

"Where is the large party we stopped for?" inquired the conductor.

"I am the large party," said Mr. Dailey, with dignity.—*Young's Magazine.*

HIGH ENOUGH.

ONE Saturday afternoon at Main office, Miss Moon "got" a subscriber who had thrown his fury into the third speed.

At first he was unwilling to talk. He wanted some one higher in authority. Miss Moon explained that he could reach no higher on Saturday afternoon.

"Well, who are you?"

She told him she was the assistant chief operator.

"But what is your name?"

She told him she was Miss Moon.

He paused, almost reminiscently.

"Moon—Moon—Moon," he repeated in a musical cadence. "Well, I guess that's high enough for me."—*Operating Bulletin.*

HER DISPOSITION.

A COW was killed on an Illinois railroad, and a section-boss who had just been promoted, made the report. He told in the proper spaces what train killed the animal and under what condition it was done. Then he came to a line: "Disposition. . . ."

"Well," said he, scratching his head, "I'll be hanged if I'm sure about that, but being's she's a cow, I think I can guess at it."

So he filled out the line, which, when it reached the general office, read: "Disposition, kind and gentle."—*International Railway Journal.*

SATISFIED HIS CURIOSITY.

AS I pen these lines," wrote the traveling man who was scribbling a letter to his wife while the train was going at the rate of fifty miles an hour, "a long-nosed, squint-eyed, rubber-necked, putty-faced Algerine, with an alcoholic breath and the manners of a Hottentot, is looking over my shoulder, and—"

A snort of rage interrupted him.

He turned quickly, but the man in the seat behind him, with gleaming eyes, compressed lips, and a fiery red face, was deeply absorbed in a newspaper.—*Exchange.*

THE CALL.

LADY (formerly an operator)—"Porter, why didn't you call me as I instructed you?"

Sleeping-Car Porter—"I did, ma'am; sho's yo' bo'n, I did. I sade, 'Seven-thirty, ma'am,' an' yo' sade, 'Line's outa ohder.'"—*Toledo Blade*.

ONE ON THE FOLDER.

"THIS is a sad case," said the asylum attendant, pausing before a padded cell. "There is no hope for the patient whatever."

"What's the trouble with him?" asked the visitor.

"He thinks he understands a railroad time-table."—*Milwaukee Sentinel*.

THEIR BELIEFS.

THE two men who had been sitting near the door of the car became engaged in an animated controversy, and their loud voices attracted the attention of all the other passengers. Suddenly one of them rose up and said:

"Ladies and gentlemen: I appeal to you to decide a disputed point. My friend here insists that not more than three persons out of five believe they have souls. I take a more cheerful view of humanity than that. Will all of you who believe you have souls raise your right hands?"

Every right hand in the car went up.

"Thank you," he said, with a smile. "Keep them up just a moment. Now, all of you who believe in a hereafter please raise your left hand also?"

Every left hand in the car went up.

"Thank you again," he said. "Now, while all of you have your hands raised," he continued, drawing a pair of revolvers and leveling them, "my friend here will go down the aisle and relieve you of whatever valuables you may happen to have."—*Express Gazette*.

JUST ONE MORE KISS.

A DEAR old citizen went to the cars the other day to see his daughter off on a journey. Securing her a seat, he passed out of the car and went around to the car-window to say a last parting word.

While he was leaving the car the daughter crossed the aisle to speak to a friend, and at the same time a grim old maid took the seat and moved up to the window.

Unaware of the change, the old gentleman hurriedly put his head up to the window and said: "One more kiss, pet."

In another instant the point of a cotton umbrella was thrust from the window, fol-

lowed by the wrathful injunction: "Scat, you gray-headed wretch!"—*Detroit Trade*.

BEYOND PERSUASION.

A GERMAN traveler who tried to pass a meal ticket on the train was told by the conductor that he would have to pay the regular fare of thirty-five cents. The German argued and refused to pay more than twenty-five cents, whereupon the conductor stopped the train and put him off.

In a twinkling the traveler ran ahead of the engine and started to walk on the track. The engineer blew his whistle, but the irate German turned, shook his fist and called out:

"You can vissle all you want to. I won't come pack."—*Eastern Laborer*.

HIS BEGINNING.

"YOU say you know nothing at all about our railroad?" said the official.

"Nothing whatever," answered the applicant.

"Well, I guess we'll put you in the bureau of information and let the traveling public educate you."—*Brass Buttons*.

INFANT DIPLOMACY.

A TALL man, impatiently pacing the platform of a wayside station, accosted a red-haired boy of about twelve.

"S-s-say," he said, "d-d-d-o y-you know ha-ha-how late the train is?"

The boy grinned, but made no reply. The man stuttered out something about red-headed kids in general and passed into the station.

A stranger, overhearing the one-sided conversation, asked the boy why he hadn't answered the big man.

"D-d-d-ye wantner see me g-g-get me fa-fa-face punched?" stammered the boy. "D-d-dat big g-g-guy'd t'ink I was mo-mo-mocking him."—*Everybody's Magazine*.

CORRECTED.

A DRUMMER who makes frequent trips to the West is on friendly terms with the porter of a sleeper named Lawrence Lee.

"Well, Lawrence," announced the salesman gleefully, "I have good news for you. We've had a birth in our family—twins, by George!"

"Dat am no birth, sir," said Lawrence. "Dat's a section."—*Life*.

ON THE EDITORIAL CARPET.

This Is Where We Gather in the Hut, Boys, Tell Our Troubles, Listen to Yours, and Sing a Few Old Songs.

WHEN you get the July number you had better handle it with rubber gloves. It will be a live wire, a third rail, a hot throttle valve, and an inspiration to the community. It will slip down the line with the easy grace of an engine coasting down a steep grade, and the power of a compound pulling a string of loads to the summit.

In the department of fiction we shall have Robert F. Creel, Emmet F. Harte, Horace H. Herr, Robert Fulkerson Hoffman, Augustus Wittfeld, and some others who are not as well known to our readers but who ably live up to the standard set by this galaxy of stars.

Mr. Creel's stories have always body in them. He is skilful in portraying the deep passions and feelings of human beings; sometimes he is unmerciful and grim. This time we have caught him in a softer mood, however, and his story has the gentle pathos of a man whose feelings are true, and fine.

Our old friend, Emmet F. Harte, switches in again with an account of how Honk purified the sacred precincts of Valhalla when they were trespassed upon and tainted by the presence of certain bad men.

Mr. Hoffman swings aboard with a story in which he is at his best in the use of that fine psychological perception which is his chief characteristic. Mr. Wittfeld is as funny as ever, and Mr. Herr's is a real Fourth-of-July railroad story with railroad men playing baseball.

J. E. Smith will continue his "Observations of a Country Station-Agent," and that is all that need be said about this interesting humorist of the rail.

Other articles will embrace a story of the largest terminal in the world, the new Grand Central Station in New York, which embodies one of the most remarkable engineering feats in the history of station construction.

We shall have a story of Theodore Judah, the real pioneer of the Union Pacific, and Mr. Rogers's fourth article in his "Help for Men Who Help Themselves" series, the subject of which will be "The Master Mechanic."

We shall have some stories about making up lost time. Gilson Willets's second instalment of his "Ten Thousand Miles By Rail" series will appear and will live up to the reputation the writer has established for his work.

In short, every bearing will be well oiled and packed, there will be no hot boxes, broken flanges, leaking tubes, hammering pistons, or broken drawheads. Be on the line.

Whistling post for July!



FREQUENT REVOLUTIONIZING.

RAILROAD men are not a very panicky crowd. The exigencies of daily life and duty are such as to give them poise and self-control.

But no man can quietly contemplate a sudden revolution of the business which is his means of livelihood without some qualms; and those veracious chroniclers, the Sunday newspapers, are always doing their best to convince the railroad man that his living is likely to slip from his fingers because of the invention of some wonder-worker by the aid of which trainmen will be dispensed with and engineers will be unknown. If somebody invents a new beetle-trap it is proven that through some manifestation of the law of gravitation railroads will soon be constructed on an inspired plan which will entirely eliminate the necessity for track, rails, road-bed, cars, employees, and traffic, and that if this does not happen, then something else will, equally mysterious and equally revolutionizing.

A little while ago the electric engine was going to supplant the steam locomotive, and, still later, an eminent gentleman was reported to hold the destiny of railroads and a gyroscope in the hollow of his hand. Railroad men who like to feel two rails under their wheels need not yet begin to fear the onward march of this much-heralded invention.

Its most wonderful feats are as yet, the ingenious imaginings of Sunday supplement artists, and, although we all recognize the

high standing and genius of Mr. Brennan, we who know anything of conditions, know the difficulties that will have to be cleared away before his invention does any revolutionizing beyond suburban passenger traffic.

An editorial in the New York *Tribune*, calling attention to the criticism of an engineering correspondent of the London *Times*, serves a useful purpose. The *Tribune* says:

"The opinion is expressed that concentration of the load upon one line of rails would demand track-construction costing more than that now in vogue. Properly to support the rails, the writer for *The Times* believes, something besides cross-ties would be needed.

"It would not be feasible, he says, to use twice as many ties of half the customary length, because there would not be room enough left properly to pack gravel between them. Piles or concrete would give satisfactory service, it is thought, but they would be too expensive.

"So original is the method he adopts for keeping a car or train upright on a single rail that the merits and demerits of his system, as a whole, should be subjected to rigid scrutiny. Investors are likely to let it severely alone until the economy, safety, and feasibility of it are amply demonstrated.

"Though a car of full size was recently exhibited in England, the questions just raised have apparently not been answered. What is now needed is a bit of experimental road, on which a car or train can be operated at 150 or 200 miles an hour. For a really instructive test of this kind the world may be obliged to wait for years."

Apropos of this subject, Mr. William Freyne, of Jerome, Arizona, very kindly calls our attention to an error which crept into our April issue, unwittingly. We referred to the inventor of the gyroscope, Mr. Louis Brennan, as an Englishman, when, in fact, he was born in Castlebar, County Mayo, Ireland. It was farthest from our intention to deprive the public of the correct knowledge of Mr. Brennan's birthplace, or his illustrious country from any glory it may win from his marvelous achievement.

More power to him!

A MILLION MILES.

UNDER this head, in the April number, we took a brief glance at the long, honorable, and efficient career of Engineer A. G. Reynolds, the engineer of the fast mail train that ran into an extra coal-train on the Lake Shore and Michigan Southern, a short time ago. We believed that, of living people, the chief sufferer from the wreck was Engineer Reynolds, who was

making an extra run after he had become eligible for a pension.

It was to be his last run, and it was his first disaster. We expressed the hope that this fine veteran would not be deprived of his well-earned rest and honor by this trick of Fate, and we are happy to say that our hope has been fulfilled.

Before our magazine had issued from the press we learned that the company had decided that Engineer Reynolds's unfortunate accident did not in any way affect his eligibility for a pension, and that, although his record had been marred by the misfortune, he still had the respect and admiration, as well as the sympathy of all his associates and superiors.

He has our hearty congratulations and our kindest wishes.

A NEW RULE AND AN OLD SONG.

THIS paragraph is about songs. In the first place we are going to violate one of our own rules, and in the second place we are going to make a new rule just by way of compensation.

The rule we are going to violate is one that has been in force ever since we started running songs in this department, namely, that we would not print one song twice. We have of late received so many requests for "The Little Red Caboose Behind the Train," that, although we published it in the October, 1908, number, we are going to reprint it here in order to satisfy a popular demand. The song is sung to the tune of "The Little Old Log Cabin in the Lane."

Now for our new rule. It is not really a new one, but it is one that has been in abeyance for so long that it seems like a new one. We are asked for so many songs that unless we limit the type of songs to be given we shall find ourselves without space in this department for our own burning thoughts. The main line is already crowded, and the despatcher has some difficulty in keeping the train-sheet uninked and the congested traffic moving without blockade.

Our readers ask us for all kinds of things—from Tennyson's last poem to "The Face on the Bar-room Floor," and if we could we would like to meet all these requests fully. But we cannot, and henceforth we shall have to limit our poetic obligations in this department to purely railroad poems.

One of our friends asks us for "The Bridge of Sighs," but as this bridge was never laid with metals we must refer him to the library of his own town. As we remember it the poem was written by Tom Hood.

Now, to redeem our first promise, here is "The Little Red Caboose":

THE LITTLE RED CABOOSE.

Now I am a jolly railroad man and braking is my trade.

I work upon the road both day and night,
Turning switches, making flies, as along the road we go,

And see that all the train is made up right.
We are always ready when we are called to go,

It's whether in the sunshine or the rain,
And a jolly crew you'll always find if you will go and see

In that little red caboose behind the train.

CHORUS.

Then, here's luck to all the boys that ride upon the cars,

May happiness to them always remain.
The angels, they will watch o'er them when they lie down to sleep

In that little red caboose behind the train.

We hang a red light on each side, another on behind,

As day goes by and night comes stealing on,

And the boy that rides ahead, you bet, he keeps it in his mind,

That all the train behind is coming along.
And when we're near the station we're startled from our thoughts

By the sound of the whistle's shrieking scream;

We skin out on the hurricane deck, while the con winds up the wheel

Of the little red caboose behind the train.

Now this little car I speak of is more precious and more dear—

Than all the coaches on the railroad line.
The reason why I say so is because it is our home,

And we always keep it in the neatest style.
Although we have no fashion lights or velvet-cushioned seats,

Still we always keep it very neat and clean.

And many an honest heart beats there, beneath the rusty roof

Of that little red caboose behind the train.



OUR FRIEND "VERY ENGLISH."

JUST as we were thinking that life was very dull, monotonous, and commonplace, we got a letter from an old friend. His name, or rather his *nom de plume*, all our readers will probably recognize. It is "Very English."

"Very English" is a young man of whom we are very fond, because he is always amusing. Last time he wrote us he assailed us with a list of questions which we,

being of a suspicious nature, believed to be mere traps into which "Very English" wished to lead our unwary feet.

Still, we answered most of our friend's cross-questionings, and thereby evidently earned his esteem. This time he writes to us almost kindly, but is still bent upon having our scalp, or the scalps of the American railroads in general.

It seems that "Very English" is somewhat of a railroad man himself, and that although his experience has been limited to such places as Africa, South America, England, and other places on the outskirts of civilization, we must extend to him the hand of a brother, or, if he wants our scalp, why, by all means let him have it.

"Very English" asks us, concealing one hand behind his back, in which we feel sure he holds a life-preserver, "Let it be granted that you have a single track. Two goods-trains, 'Q' and 'R' are going in opposite directions, with orders to cross each other at a siding. In this land of the free, if the engine-driver of 'Q' thinks that he might 'make' the next siding before meeting 'R,' does he go ahead and try, notwithstanding his orders? Can't I 'hang one' on America in this?"

"Very," you can hang on us just exactly what you like, but there are only two things, so far as we know, which would prevent an "engine-driver" from doing what you say.

The first is his own sanity, and the second one, the wholesome fear of a large and commodious "can," which would be very probably awaiting him at the end of his run. Perhaps you don't know what a "can" is, but it would be something quite sufficient for an engineer who bucked orders so flagrantly.

Of course, "Very," you realize that we, personally, can't be responsible for every fool in the business. Some men think that they should take no more notice of a Book of Rules than the average man does of the Ten Commandments, but that is not so, really. Their attitude does not alter the fact that the Book of Rules exists, and that there are severe penalties for disobedience.

After handing us this little jolt, "Very English" sends us a bouquet, which we must print in full.

"Your magazine compares favorably with those published in England, but being English, it would be almost treason to say that you can nearly equal anything made in the Old Country, and 'compares favorably' is the best that you can expect. Don't you think that my English has improved? Honestly, I had an expensive education—in England."

Yes, "Very," your English has decidedly improved under our careful tuition, but even yet it is rather bad. You will notice that in the first sentence of this last part of your letter, which we quoted, you handle your native language so as to make it appear that THE RAILROAD MAN'S MAGAZINE is English. Far be it from us to disclaim any honor, which we can legitimately hold, but really and truly we are not very English.

THE OLD SONGS.

OF the old songs and poems asked for in our April number, we give this month two: "The Night Operator" and "The Brakeman's Appeal." Both are old-timers, and we beg to thank those of our readers who sent us the words. Such kindness is appreciated.

Now, all make the getaway!

THE NIGHT OPERATOR.

BY J. S. TAYLOR.

In his little lamp-lit office
Through the gloomy hours of night,
Sits the lone night operator
From the eve till morning light.
Watching close with sharpened hearing
What the sleepless sounders say,
Talking with his wakeful neighbors
In the stations far away.

Conversation with his far-off neighbors
Drives the dull night hours along,
While his duties and his orders
All the while his memory throng;
Though his eyelids drop at midnight,
Fain to close themselves in sleep,
Not for him the bliss of slumber,
He must still his vigil keep.

All the while the sleepless sounder
Tells its tales of joy and wo,
Now it tells of birth and marriages,
And how hearts with rapture glow;
Now it tells of fatal sickness,
Now it speaks of wailing breath,
Now it speaks of mournful accents
Of some dear friend's sudden death.

Now I see a scowl of anger
Cloud the operator's brow,
Hear him breaking in his sending,
Wonder what's the matter now.
'Tis some plug that is receiving,
Hear him break and say "GA"
Four or five times in one message,
Ere he deigns to sound "O. K."

Now his office call is sounded—
How the glistening sounder clicks—
And he catches quick the order:
Flag and hold train No. Six.

Quickly comes another order
For a freight-train overdue,
And the sounder clicks it fiercely:
Hurry up the "32."

Now he's fighting for the circuit
With some fellow working west,
One can never break the other,
Each one does his level best;
Quickly speaks the train despatcher,
How his sharp words ringing come,
Stop, I tell you, stop this breaking,
Or, I'll send you rascals home.

Little knows the man or woman
Swiftly speeding o'er the rail,
How the safety or the danger
Rests on one who dare not fail.
Even on the night operator,
Seated in his lonely room,
Whose mistaking of an order
Sends the train to awful doom.

Kindly greet the operator,
He is human, nothing less,
Let some soft word, kindly spoken,
Serve his tired heart to bless.
Oft he tires answering questions,
And his face looks hard as stone,
But the heart within his bosom
Beats as kindly as your own.

THE BRAKEMAN'S APPEAL.

In the pleasant summer weather,
Standing on the car-top high,
He can view the changing landscape
As he swiftly rushes by.
While he notes the beauteous pictures
Which the lovely landscape makes—
Suddenly across his dreaming
Comes the quick, shrill cry for brakes.

But when winter's icy fingers
Covers earth with snowy shroud,
And the north wind like a madman,
Rushes on with shriekings loud,
Then behold the gallant brakeman
Springs to heed the engine's call,
Running o'er the icy car-top—
God protect him should he fall!

Do not scorn, but treat him kindly,
He will give you smile for smile;
Tho' he's nothing but a brakeman,
Do not deem him surely vile.
Speak to him in kindly language,
Tho' his clothes are coarse and plain,
For in his breast surely there beats
A heart that feels both joy and pain.

He may have a hopeful mother,
He may be her greatest joy;
Perhaps at home she is praying
For the safety of her boy.
How he loves that dear, good mother,
Toiling for her day by day;
Always bringing home some present
Every time he draws his pay.

Daily facing death and danger—
 One misstep or slip of hand,
 Sends the poor, unlucky brakeman
 To the dreaded unknown land.
 While we scan the evening paper
 Note what its filled columns say;
 One brief line attracts our notice:
 "One more brakeman hurt to-day!"

TWO IMPORTANT CONVENTIONS.

THE Master Car Builders' and Master Mechanics' conventions at Atlantic City, New Jersey, June 15-22, will be of unusual interest to the entire railroad world. In all probability these two influential organizations will be merged into one association. This was strongly recommended by former President H. H. Vaughn in his 1909 address to the American Railway Master Mechanics' Association, and it is believed that should the matter be put to a vote a majority of the members of both bodies will be in favor of the merger. In addition to this, the technical value and research embodied in the various papers to be read and discussed will render the 1910 conventions the most important in the history of either association.

ANOTHER HOBO BALLAD.

WE have received from Jerry Wilson, of Liberty, Indiana, the following touching contribution to the already overladen wanderlust classics. Mr. Wilson found it in an old book. We take pleasure in giving it to the public again through our Carpet, and we have several other good ones which Mr. Wilson kindly sent us to print later.

Swing her ahead!

TALE OF A TRAMP.

WELL, we comes to Punkin Center, that's a town in Kansas State,
 And the brakie finds us hiding, so he ditched us off the freight,
 And we watched her tail-lights glimmerin' down the track a mile away,
 And it sets my think-box rattling that we'd come to town to stay,
 Fer this burg was sure a station where the rattlers seldom stop,
 So my side-kick puts it to me that we find a place to flop.
 Well, we does; we finds a barn-loft filled with soft and smelly hay,
 And we pounds our ears inside it till about noon-next day.
 Then I tells my pal, "Let's beat it. Guess we'll have to throw our feet,"
 Fer my backbone's in my stummick an' I need a bite to eat.

"Meet me down above the deepo when you've hit 'em up a bit,
 I'll be there if I'm in luck and we'll divvy what we git."
 Well, we splits; he takes the main-stem an' I does the rural scout,
 And the seventh door I batters—bim! the dame just jaws me out
 Something awful, calls me lazy—calls me bum and calls me shirk—
 Sez a great big tramp like I was ought to go to work.

Say, her talk was sure a cuckoo, and the fire flashed in her eyes,
 But I past her well-curb goin'—and I cops two custard pies.
 Big and round they was and juicy, pretty fat for such as me,
 So I beats it down to meet Bill where I tells him I would be.
 He was there; we chews that swell feed, with our whiskers full of grins,
 And I says, "She give 'em to me if we'd bring back her tins.
 You go take 'em to her buddy, set 'em down inside the door—
 Now that husky, hungry hobo ain't my pardner any more.

CONDUCTORS IN DEMAND.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

YOUR "By the Light of the Lantern," some two months ago, in reply to an inquirer, said "That promotion from brakeman to conductor was getting slower for some unaccountable reason." Here, in the West, there is a demand for conductors, and, later on, there will not be sufficient to fill the demand. I was promoted after two weeks. Any brakeman of three years' experience proving that he has the goods on him—accent on "the goods"—need not brake long on any of the Western lines.
 C., Vancouver, Wash.

"THE GENERAL" AGAIN.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

REFERRING to the query of "I. S.," Fishkill Landing, New York, in your April number, the engine, "General," is the original engine run by Andrews, and I think that "I. S." is a little bit off. This engine, after the Civil War, was used in freight service on the old "W. and A." Railroad between Chattanooga and Atlanta.

Since then, the engine has been repaired and painted, and, as you know, is now on exhibition in the Union depot at Chattanooga, Tennessee.

Kindly publish this in your next number, for the special benefit of "I. S.," and any others who may wish to know the correct answer to his query. The engine "Hero," which he mentions, is probably one of the

other two engines besides the "General" which were used in this famous escapade.

"D. P.," Nashville, Tenn.

THE JARRETT & PALMER ENGINE.

WE acknowledge with much pleasure a letter from Mr. C. J. McMaster, Malone, New York, which brings to our notice some intimate information regarding the locomotive that made the remarkable run with the Jarrett & Palmer Special, in 1876, from Ogden, Utah, to Oakland, California, as described in our March number. The distance between the two cities is 876 miles, and the engine that made the run was the "Black Fox."

We are always glad to receive such letters as Mr. McMaster's, and we take pleasure in publishing it in full:

EDITOR, THE RAILROAD MAN'S MAGAZINE:

In your issue of March, 1910, in the article about the Jarrett & Palmer special, I note you give the names of several railroad officials connected with this train, but do not give names of the engineers and firemen, or other railroadmen that did the work and brought about such satisfactory results. I am not kicking, but it would be a pleasure to many of your readers to have such information.

I was in the employ of the Long Island Railroad as a locomotive engineer in June, 1869, and Mr. Oliver Charlick was the president. He occasionally took a ride with me on the engine, and, as he was quite well acquainted with me, he would often converse with me at Hunter's Point Station while we were waiting for the boats to come from New York for our connection.

At this time, I was running the engine "A. J. Vanderpool" on the Greenport express. This was a fine Schenectady or McQueen locomotive, and Mr. Charlick seemed to take great pride in her.

Mr. Charlick told me that Mr. Huntington had an order with the Schenectady Locomotive Works for fifty locomotives, and he was trying to get two out of this particular order, as they could not build those he had ordered early enough for his requirements. He had been made president of the Lebanon Springs and Bennington and Rutland Railroad, which was an extension of the New

York and Harlem Railroad from Chatham, New York to Rutland, Vermont.

Incidentally, he asked if I was much acquainted with that locality. I informed him that I had been employed on the New York and Harlem Railroad for several years, as fireman and engineer, and that I was at home at Chatham.

He then instructed Mr. C. A. Thompson, M. M. of the Long Island Railroad, to send three old locomotives to the Lebanon Springs road. Mr. Thompson sent the "Pacific" (which was later named the "Manchester"), the "James Sedgley" (which was later named the "Lebanon"), and the "George F. Carman."

I was sent with the "Carman," set her up, and turned her over to the L. S., and B. and R. R. R. He then got two locomotives out of Mr. Huntington (orders No. 150 and 151), named "Mountain Boy" and "Mountain Girl." Now, the engine that made the run from Ogden to San Francisco, pulling the Jarrett & Palmer Special, 876 miles without change, was No. 149, named "Black Fox," and was a sister engine to the "Mountain Boy" and "Mountain Girl."

I took the "Mountain Girl" the 10th day of August and ran her most of the time up to February 28, 1885, when I was made M. M. of the B. and R. road, and kept these two engines in good repair up to the summer of 1906, when the "Mountain Girl" was demolished in an automobile wreck, running backward on the Bennington Branch.

The boiler of this engine is now in service in an excelsior mill at Rutland, Vermont. The "Mountain Boy" is still in service on the Rutland Railroad under the number 1060. Although it seems interesting to see such things in print, those that have had any familiarity with them like to see more detail, which brings fond recollections to lighten our leisure time.

AMONG THE MISSING.

MR. J. J. BRENNAN, of Auburn, King County, Washington, writes to THE RAILROAD MAN'S MAGAZINE asking for the whereabouts of his brother, H. E. Brennan, known as Harry Brennan. He was employed as switchman on the Great Northern at Delta, Washington, about eighteen months ago. His sick mother would particularly like to hear from him.



WALTER E. FLANDERS—INDUSTRIAL COLOSSUS

THE TRUE WONDER-STORY OF THE POOR VERMONT MACHINIST
WHO TURNED \$195,000 INTO \$6,000,000 IN TWENTY MONTHS,
MADE HIS ASSOCIATES RICH, PLACED HIS AUTOMOBILES ON EVERY HIGHWAY IN THE UNION,
AND SHARED RESULTS WITH HIS MEN

BY ROBERT H. DAVIS

SOMEWHERE, in the past, an emperor said to his satrap, bending before him: "I have a task for you."

"Sire," responded the obedient one, pressing his forehead to the flag-stones, "if it is possible, it is accomplished. If it is impossible, it shall be accomplished."

Thereupon, having made an imperishable epigram, quite enough to immortalize its sponsor, he curled up and expired, leaving the task undone.

That story belongs to the ages.

The story written upon these pages, the story you are about to read, is an accomplishment of today, the full realization of one man's effort, a triumph so far-reaching in its consequences, so vast in its relation to the future, that it sounds like the history of a dream.

One may read a chapter from "The Arabian Nights"; and, at once, the mind, wafted upon the wings of imagination, soars into the realms of even greater things, wandering unchecked into the far reaches of infinite space, guided by the genie of fancy. Illusion lures us on, and we are lost in the mists.

Not so with the things that are.

I open for you the Volume of Life in the Book of Now. Written upon its leaves is the name of Walter E. Flanders; birthplace Rutland, Vermont; age thirty-nine; nationality American; station in life, son of a country doctor, and poor. His ancestors were French, but their de-

scendant belongs to the New World era.

All that follows is a true story, woven from the career of a living personality.

That part of a life summed up in the word "boyhood" is too ephemeral for historical use—mainly for the reason that a crucial moment in later youth may bend the sapling another way, and so the tree thereafter grows.

Flanders left school at fifteen years of age, and became a machinist, a handler of steel and brass and iron, carving his character out of metal with a cold chisel for a stylus. He stained his hands with journal oil, and wiped the sweat of toil from his brow with a skein of cotton waste. He got all the grand opera he ever heard from the hum of a lathe and the crescendo of an anvil, and his muscle from a hammer of his own forging. In his own language, it was "hard scratching."

He bent his whole mind to the work of creating, urged on by the insatiate national demand for perfection in machines. He saw the hand-made products of mankind wavering from their supreme position. Everywhere the country was growing, manufacturing increasing. The call for tools smote him on all sides. Consumers wanted quicker action and wider, swifter distribution.

He dropped his hammer, stopped his lathe and went on the road as a salesman, leaving behind him, with all their alluring memories, the scenes of his earlier life.

Something bigger and broader beckoned to him. The risk he ran was nothing compared with the benefits that might accrue if he succeeded. Failure did not figure in his plans. And he did succeed—succeeded because he knew there was a demand—and saw ahead of him the outstretched hands filled with orders and dollars. Artisans, craftsmen, and manufacturers wanted what he had to sell, and they were willing to pay. He combined personality with business, and to those to whom he sold his machines he imparted knowledge as to their uses. His customers got not only what they paid for, but some of Flanders's inspiration gratis. His heart was in his business.

Soon it began to dawn upon this Vermonter that if he could sell other men's tools, he could with perhaps greater success sell his own. He discerned an increasing demand for certain special machines and machine tools. Equipped with ability to create and distribute, he became a producer, his one idea being not only to keep abreast of the demand of the market, but ahead of it. He felt instinctively that the great problem in manufacturing was to minimize the cost of production through mechanical means without detracting from the quality of the output. In fact, he set his mind to the business of increasing the general excellence. That has been his life work.

During this formative period, so necessary in the development of one who was later destined to take a supreme position in manufacturing and commerce, there was forming in the back of his mind a vague hope that his influence might become universal instead of local. All he lacked was the right opportunity—the big nation-wide call. His business continued to grow, and, with it, his ambitions. But there was a restlessness in his heart, a galling sense of restraint. Things weren't coming along fast enough; and, without knowing why, and failing to analyze the situation to his satisfaction, young Flanders began to chafe.

About this time, 1895, in the city of Chicago—Thanksgiving Day, to be exact—Mr. Herman Kohlsaas offered the sum of \$500 for the man who could first cover the route in an automobile over a course

from Jackson Park, Chicago, to Evanston, and back. The distance was fifty-four miles. The winner consumed ten hours and fifty-four minutes in making the trip. That meant an average speed of about five and a quarter miles an hour.

There were six entries, four gasoline and two electrics. Mr. Kohlsaas was so shocked at the bad time made that when the first car passed his house, late in the afternoon, he had retired from his front porch in disgust. The papers printed many columns about the event, however, and a few courageous prophets began to sit up and take heart.

History laid an egg that day.

Two years later, when the Dingley tariff bill was adopted, the gentlemen in Washington who watch over our destinies hid the automobile in the schedule of "manufactured metal." It was denied the dignity of a separate classification.

In the meantime, Flanders turned his face across the prairies toward Chicago. He saw the race dimly, and although the spark did not work very well that bleak afternoon on the road to Evanston, it struck a new light in the mind of the New England machinist.

Something began to loom large ahead of him, at first intangible and shapeless. He saw before him the open road, and on its stretches automobiles. And slowly, but surely, there crept upon him the realization that his day was coming, a period that, from the very nature of things, might be delayed, but nevertheless was sure of fulfilment.

The egg in Chicago began to get warm.

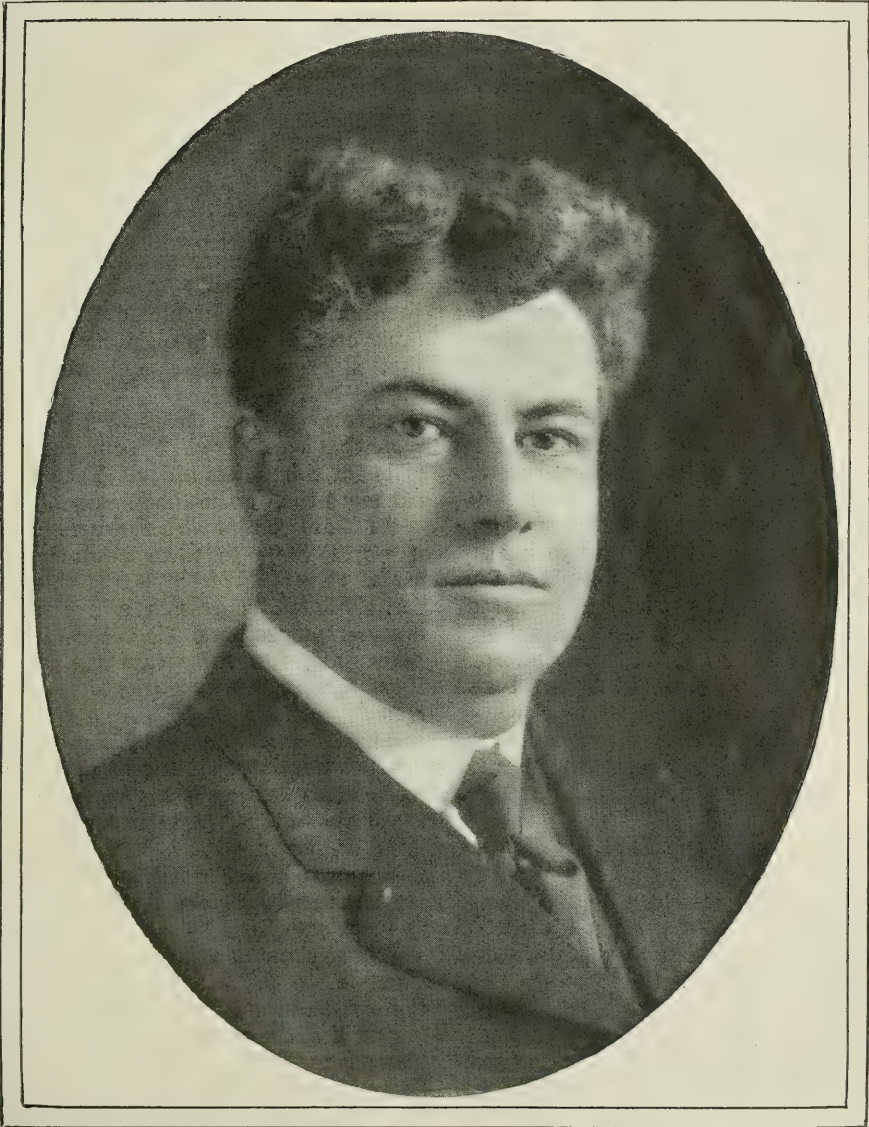
His previous experience had taught him that it was useless to engage in an enterprise contemplating the sale of anything for which there was not a widespread demand. He knew that the automobile was in the experimental stage, retarded in its development by a very natural hesitation on the part of a people who preferred to group themselves with the spectators rather than the participants.

As late as 1900 the automobile was still a novelty, not more than twelve hundred being in use throughout the United States. Not more than twice that number existed in Europe.

Suddenly the magic wand of demand

began to beat time with the increasing orders, and in 1903 the business advanced to \$16,000,000, and the industry leaped forward in such volume that the figures became dazzling exhibits in multiplica-

dropped back to \$83,000,000. In 1909 the tide turned again, and the figures went up to \$135,000,000. It is estimated that this year the amount will exceed the almost incredible sum of \$250,000,000.



WALTER E. FLANDERS, PRESIDENT AND GENERAL MANAGER OF THE E-M-F COMPANY

tion. To wit: 1904, \$24,500,000; 1905, \$42,000,000; 1906, \$50,000,000; 1907, \$105,000,000. At this juncture, in the onrush, money conditions were disturbed in the United States, and the output

The egg had hatched.

Into the thick of this colossal proposition stepped Flanders, equipped to meet any condition.

A good mechanic forges his own armor.

He had mastered the details of construction, the business of direction, the art of organization. About him he had gathered men into whom he had infused a virility which displayed its power in everything they touched. They were inculcated with the kind of impulse that is kept alive by a sense of pride not only in what they had already achieved, but in what they intended to do as well.

How did he accomplish this almost impossible result? By what manner did he make his men into soldiers just as loyal to him as they were to their higher ideals?

HE PICKED THE RIGHT MEN.

That was his first step in a plan that meant as much to the future as it did to the present. The only way possible for him to work out his scheme and carry it through and over all obstacles was to convince his lieutenants that he regarded them worthy of trust and to fix upon them responsibilities, the accomplishment of which would justify his most substantial approval.

He selected those men as the machinist selects his steel—with an eye to quality, strength, temper, and durability. "Will this man stand the test without breaking? Will he hold up under the pressure that will fall upon him? Can I depend upon him at a critical moment? Yes. I will take him."

And then there arose in his mind the one big, overwhelming query, the question that appeals to employer and employee alike:

"HOW SHALL I REWARD HIM?"

And in the solution of this problem, Flanders rose to the supreme pinnacle of his individualism, the apex of his mastery of industry. I give you the secret of his success in one sentence:

"I WILL LET HIM SHARE RESULTS."

In a word, those who helped him reap got some of the crop. It was not bestowed because of friendship, not given as a charity, not placed in their hands as a concession to their presence, but as an earned bonus for honest work honestly performed, and because of which the customers of Flanders got their dues.

It may be interesting to whoever reads these lines to know that I have never

interviewed the gentleman they concern. I gather all that is to be said from his associates, from those who have benefited through and been inspired by his methods. I saw hundreds of well-ordered, cheerful men at his drills and forges and throughout his shops, with their eyes on their work and contentment in their faces.

Perhaps the best example of the excellence of his doctrines, as applied to the business of manufacturing, is illustrated in Plant No. 1 of the E-M-F Company at Detroit, the first established by Mr. Flanders.

That particular factory had a capacity of thirty cars a day. A visitor, one quite familiar with the automobile business, discovered in looking over the institution that sixty-five cars a day were being turned out.

"How do you do this?" he asked, somewhat bewildered. "Your equipment calls for thirty cars a day. Yet you turn out more than twice that number."

"I share results with my men. I make it worth while to them in dollars and cents. Every car that leaves this plant for shipment represents a premium to every employee here. It is true that the plant calls for thirty cars per day, but *I am fortunate in having a sixty-five car crew.*"

That is how Flanders explained it.

How simple it all seems, and what a tremendous bearing it has upon the quality of the output. Apparently it pays to have the instincts of a human being, to possess red blood in one's veins, and to let that fact be known in business as well as in private life.

Straws show how the wind blows. For example, to proceed further in a solution of the mystery as to how he does it. When the championship baseball game between the Detroit Tigers and the White Socks was played in 1909, the E-M-F Plant No. 1 shut down Friday afternoon, and all hands, including Flanders himself, went to the ball grounds, saw the Tigers win, and went to their homes rejoicing in the victory. What happened on the morrow, Saturday, when all E-M-F plants shut down at noon? The impossible? Yes.

Eighty-three cars left the plant in perfect condition, and were shipped as usual to various agents. The lost time of the previous day was made up, the full complement of cars turned out, and every employee got his full week's salary and his weekly premiums as well. That's Flanders's way.

This means organization of the highest type, and its fruits are shared by the one most concerned—the purchaser. Every employee feels the responsibility of his position. He is made to appreciate his relation to the concern. He sees about him the interdependent benefits that attend through the work of the man next to him.

His heart beats with the note of partnership, and he achieves not only the benefits of employment, but the greater satisfaction of accumulating profits. Moreover, he enjoys reasonable hours and a week-end relaxation that fits him to put his heart and his head into the task before him. He never finds himself "asleep at the switch."

The man who worked out this system of endeavor, with all that it stands for, holds that "a fagged mind is incapable of interest." Furthermore, he has a theory that it is not natural for man to work at night; that the machine, as well as its operator, suffers injury greatly in excess of the advantage gained.

Flanders learned this early in life when he himself had to work over-time, and paid for it the next day in exhaustion and indifference. The lesson left its impress for all time, and today no man in his employ comes to his task tired—or leaves it so.

His hours at the factory are from eight to five. His is a life of performance, and ever uppermost in his mind is the one idea to make those around him put forth their best efforts on their own account, to go forward in unison, the goal of accomplishment ever in view.

Always ahead is the share in the results.

If you were to suggest to Flanders that his heart actuated his policy, he would stoutly deny it. With him it is simply a matter of business, the application of a tenet through which he wins from each

man the maximum results. If in the transaction the employee finds additional encouragement to labor, so much the better. But first, last, and all the time, he believes it to be merely a good business proposition.

He has tried every conceivable plan, and discovered that the idea of mutual benefit is the best. Because of it, the machinist watches with more care the drilling of a journal or the tooling of a cylinder; the forger welds with a firmer hand; the electrician makes his connections with finer adjustment; the leather worker does a job in upholstering that is a credit to his skill and a comfort to the luxury-loving buyer, leaning back in the comforting solace of its embrace; the painter plies his brush with measured precision, and the varnisher lays on the gloss as the master touches his picture for the exhibition.

Always there is pride at the workman's elbow, urging him on to perfection and finish and beauty. And when the work is done and the glistening car rolls out on the shipping-platform, tested, complete and perfect in every detail, those men through whose hands it has passed know that it represents something more than a mass of metal and trappings hastily thrown together and thrust upon the market against time to perish because of its weaknesses and tumble into the junk-heap. It is something that will endure, and *they made it*.

When an E-M-F employee sees one of the company's cars on the thoroughfare, his face lights up with pleasure. He knows it to be built on honor. Part of it is his own, and he is certain that the man at the wheel is benefited in satisfaction as was the builder in premiums and pride.

That knowledge is an asset of incalculable worth, a circumstance that plays a strong part in the transaction of distribution and salesmanship. The buying public is too shrewd not to take advantage of the inspiration that contributes to the creation of such a machine.

And so the army of men behind Flanders march onward, adding to their strength, winning new positions in the manufacturing world, opening up new

territory, planting the standard of accomplishment along the highway, each private just as sure of his strength as the crusader who blazed the way.

Because of these conditions and with the impetus created, the E-M-F Company found itself in a strategic position. Its enterprise attracted the attention not only of the dealers, but the public as well. From every quarter of the Union buyers sought its output. A steady stream of orders came to Detroit, and the plant found itself taxed to its utmost.

The business grew so fast that the old plan of distribution and sale was found inadequate to meet the clamor for cars. Flanders, discerning a cloud on the horizon, decided to reorganize his sales force, to establish E-M-F salesmen in a thousand American cities, to develop new concerns throughout the country, whose sole mission was to handle the E-M-F "30" and the Flanders "20" to the exclusion of all other cars, and, moreover, to begin with the thirty-five metropolitan centers at once.

It was a proposition of unusual proportions, requiring a prompt decision as to the program by which it was to be brought about. During the halt to plan this step twelve hundred cars had accumulated in the stock-rooms. Flanders himself had held them back, pending his coup. He took twenty-four hours off for deliberation, mapped the whole thing out to its minutest detail and sent for his advertising manager, Mr. E. LeRoy Pelletier.

The conference was short and to the point.

"The E-M-F Company is ready to close with a representative in thirty-five American cities to handle its product direct, instead of through the sales organization which formerly acted as its distributor." That was the burden of his statement.

Mr. Pelletier stated that he would prepare the advertising immediately.

"How much time have we got in which to do this?" he asked.

"Ten days," answered Flanders. "Phrase the advertisement to suit yourself. All I want to offer is this paragraph."

He handed Mr. Pelletier a slip of paper, upon which was written:

"A splendid opportunity for hustling young men of good standing, having experience in selling large quantities of automobiles, and with sufficient backing to finance this proposition to form a sales company. The E-M-F Company will co-operate with you in establishing a permanent business corporation."

"The mails are pretty slow for such an occasion," volunteered Pelletier.

"You're quite right," said Flanders. "Use the telegraph. Make the copy for half pages, and use two dailies in each city. The rest of the work is up to you. Do whatever you think best."

And so the work was turned over to the lieutenant, and before sundown the copy was prepared and flashed to the thirty-five largest cities in the Union. It was a gigantic stroke of business.

The forty-six words embodied in Flanders's contribution to that advertisement had a telling effect on the wide-awake automobile men throughout the country as indicated by the fact that on the following day there started from San Francisco, on the same train, six men with ample backing, bent on getting to Detroit for the sole purpose of securing the agency.

And from other sections, not so remote as San Francisco, they poured into Detroit on every train. The successful San Franciscan took three hundred cars on his first order, paid cash for fifty, and left shipping instructions for the remaining two hundred and fifty. A sight draft was attached to each bill of lading.

Within the ten days specified, the twelve hundred cars were cleaned out of the E-M-F store-rooms, four hundred more were ordered, and one million dollars had poured into the strong box of the company, added to which were \$19,000,000 additional in future orders.

It does not require a mathematician to figure out just what Flanders's plunge meant to the E-M-F Company. Let us calculate the value of those forty-six words that he contributed to the advertisement, based on the \$20,000,000 results. In actual money, it figures out \$434,782.60 per word.

Rather high rates for a man who isn't addicted to the writing habit. Occasionally a dream comes true.

Quite naturally this performance staggered the automobile world and startled Flanders's competitors. As a matter of fact, it did more than that. It woke up capital and drew the attention of Wall Street to the significant fact that a new giant in the industrial world, a modern "colossus of roads" had reared his head in Detroit and was about to march upon the open highway and claim his share of the rewards of progress. It had none of the significance of a raid; it was business and salesmanship pure and simple. The idea was huge with promise and the money powers knew it had come to stay.

What all this meant to the banking world will be the more appreciated when it is pointed out that less than two years ago it was practically impossible to borrow a dollar on an automobile manufacturing proposition. It was considered too great a risk for the conservative banking world to undertake, and a deaf ear was turned to every appeal.

Only private capital had the courage to invest—and always against the advice of the bankers. Other sources of supply remained aloof. Within the last year, however, the situation showed signs of relaxing, and the money powers, encouraged and attracted by the steady growth of the business and the rapidly increasing demand for automobiles of all kinds, came forward with offers of support to several companies that had established a firm footing.

Nothing, however, in the automobile business appeared to have made the impression that was occasioned by Flanders's achievement and in the face of such odds. It was gigantic in its promise and awakened a lively discussion and interest.

Flanders must be seen at once. He had done something that entitled him to serious consideration. He was invited to come to New York and consult with a representative of the leading bankers. Several meetings were held. "What had the Vermont machinist to sell? How much did he consider it worth? How old was the business? Had he any plans

for the future? Were the books accessible, etc., etc.?"

Flanders presented his case briefly. His total investment in twenty months amounted to \$195,000; his pay-roll numbered about 12,500, and it was agreeable to him that the probable purchaser install an expert accountant to go over his books. He was of the opinion that about \$6,000,000 would be sufficient to close the deal and turn over the E-M-F Company to whoever wished to secure possession of the property, together with what it meant to the future of automobile manufacturing.

The banker, with that foresight which has marked his course in similar large industrial enterprises, considered the Flanders proposition a fair one, and the transaction was closed upon those terms. Thus, the E-M-F Company's original investment was turned over in twenty months multiplied thirty-two times.

Wait! That is not all. Flanders had some partners, a group of men who had gathered under his standard when the outlook was not so encouraging and daring was fraught with peril—a band of faithful followers who had cast their lot with him when fortune was not smiling so broadly. They must be cared for; their stock holdings taken up *and for cash*. Very well!

What did Flanders consider proper in the circumstances? Well, about eight for one. The banker agreed, and it was settled on that basis. Those men became rich overnight, and Flanders was satisfied. How well the sharing policy worked out—just as Flanders meant it should. All his promises were kept, and the original organization, with all its heart and energy and inspiration, got its dues.

Those men are still with the E-M-F Company and Flanders.

What did the new investors buy besides the good-will and the plant? The appraisers passed on the pile of brick and mortar, the equipment, and the stock, and summed up the worth of the concern in all its inert majesty. There it stood a monument to its builder, a structure into which he had injected all of himself and into which he led twelve thousand or

more active loyal workmen from whose brains and hands he had moulded success for all of them. Each man asked the question, if not to his neighbor, to himself:

"WHAT WILL THE NEW BOSS DO WITH US?"

It was a dramatic situation, marked with suspense—yes, with alarm.

Flanders meant more to those men than they could possibly convey to the new owners, and they wished to know what was to become of him. One day a whisper ran through the factory. It leaped from lip to lip, from floor to floor, through the assembling-room, out into the foundry, back into the offices, down the long aisles of the machine-shop, up and across and through the yards, past the gatemen, and then, by phone to the homes, and over the continent to the salesmen, and twelve thousand pulses began to beat faster.

"FLANDERS WAS TO REMAIN IN CHARGE."

The new interests, wise in their prosperity, had secured not only the plant and its good-will, but the big man with the shock of tousled curly hair, the beetling brows of the elder Dumas, and the instincts of brotherhood.

They had retained the man whose motto is "He who shares results lives after he is gone. He who does not, dies and is forgotten."

When Flanders speaks of the E-M-F Company, he refers always to his lieutenants. Whatever he has achieved he charges to them. He takes little or no credit for himself. His only claim is that he knows a good man when he sees one. Also he knows the business of automobile manufacturing in all its phases.

His influence in the industry extends to the remotest corners of the globe. Every rubber company in the world looks to him for some of his business. The cattle on a thousand hills sooner or later contribute hides for leather. The steel forgers and brass makers and iron kings come inevitably to his doors for trade. The hardwood forests of the tropics pass through his planers, and a river of lubricating oil runs through his automatic machines.

Where in this country is there a more encouraging example for the youth who is scanning the horizon of his life in search of an opportunity? Flanders proves that opportunities can be made, for whatever he has achieved is traceable to his own efforts, coupled with a sense of justice and fair dealing with his fellow man.

His is the life drama of one who learned a trade, worked out its details, and then hoisted his flag for business. He knew what he wanted to do, and how to do it. With one blow he struck the high, clear note of organization plus compensation. In the hands that were lifted to signify a willingness to go on the firing-line he put the tools with which to work; in their hearts the fervor of enthusiasm, and in their pockets the reward.

He raised wages, gave the people better cars, brought new ideas to the business of distribution and manufacture, and the banking world came to his doors.

He saw from the capital of experience just what was needed to awaken the vast opportunity summed up in the word *motor-car*. It did not require a colossus to observe these things; nor yet a colossus to lay the plans. But it did require a colossus to put the plans into execution—to instil into the men the kind of stimulus and understanding that would directly benefit the buying public. It was not a problem in psychology. It was just a proposition of everyday, plain, American commonsense applied to modern conditions, with a rather clear eye on the future.

It was adding a personality to an industry, vitalizing a trade, putting breath and head and heart into a machine and "whacking up" with the other fellow.

"He who shares results lives after he is gone. He who does not, dies and is forgotten."

Flanders not only made his epigram, but, unlike the satrap, accomplished the seemingly impossible as well. And out of it grew an empire in the industrial world which all other powers in the parliament of progress recognize for what it has already done, and respect for what it intends to do.

Universal Intercommunication



Universal service as typified by the Bell System today is the result of thirty years of unceasing endeavor.

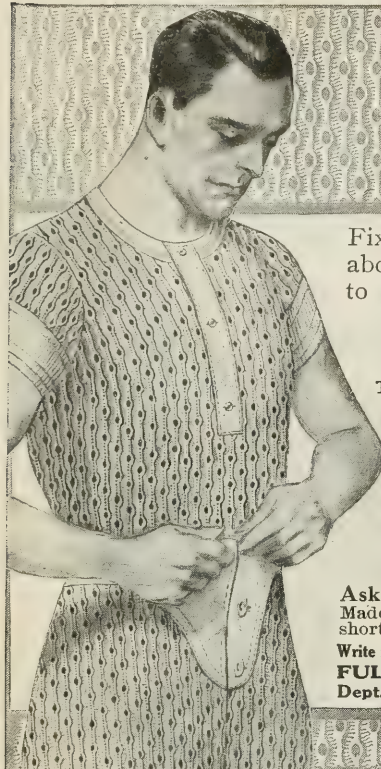
The equipment for this service includes ten million miles of wire, more than twenty-five thousand miles of underground conduit, buildings enough to house a city of people, thousands of switchboards with millions of tiny electric lights and billions of miles of fine copper threads—*over five million telephones in daily use.*

This great development has been made possible only by sound financing and proper provision for maintenance and reconstruction; while fair profits and substantial security have won the confidence of conservative investors. Especially when considered with the fact that the value of Bell properties exceeds the outstanding capital.

The Bell System was so wisely planned and soundly constructed that it has kept pace with the constantly increasing demands of a Nation.

***Twenty million connections made daily
show the usefulness of the Bell Service***

**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**
One Policy One System Universal Service



Keepkool

TRADE MARK

UNDERWEAR

Fix this fact in your memory. Consult your Comfort about it. It is your reason for preferring *Keepkool* to any other summer underwear.

KEEPKOO*L* is the Only Elastic Ribbed, Porous Underwear

The porous idea in underwear was never given practical expression until the elastic ribbed *Keepkool* was invented and patented.

And *Keepkool* is the only porous underwear that allows unrestricted freedom of movement—that gives perfect and permanent fit—that delivers a full money value in wear.

Men's Separate Garments 50c

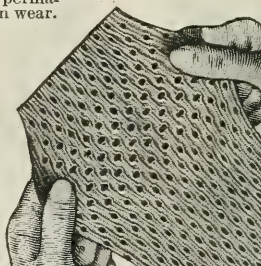
Men's Union Suits, \$1.00

Boys' Separate Garments 25c

Boys' Union Suits, 50c.

Ask your dealer for **KEEPKOO*L***. Made in knee or ankle length drawers, short or long sleeves and athletic shirts.

Write for catalog and sample of *Keepkool* fabric to
FULD & HATCH KNITTING CO.
Dept. H. Albany, N. Y.



ELGIN WATCHES ON CREDIT

Sent Prepaid on Free Trial

SPECIAL WHOLESALE PRICES THIS MONTH.

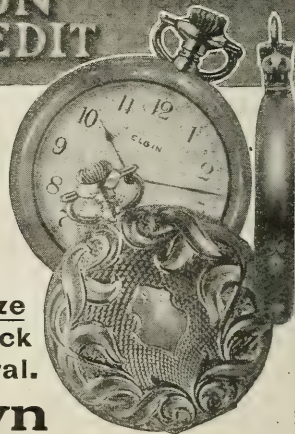
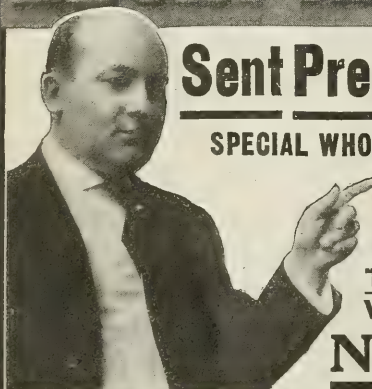
*Let me send you
this 17-Jewel Elgin*

G. M. Wheeler 12 or 16 Size

Thin Model at our Bed-Rock

Wholesale Price on Approval.

No Money Down



P.S. Harris, Pres. Harris-Goar Co.

The House that sells more Elgin Watches than any other firm in the world.

It's the one watch without an equal—the kind you have always admired—adjusted to Three Positions, Temperature and Isochronism—finely finished and fitted in a Double Strata Gold Case, Hand Engraved and **GUARANTEED FOR TWENTY-FIVE YEARS.**

You Assume No Risk Whatever

in dealing with us because before you buy or pay one cent, we place the Watch right in your own hands and let it do its own talking, and if it suits, you may pay cash or take advantage of our Easy Payment Plan ranging from \$5.00 a month down to

\$2.00 a Month

We Ask No Security and No Interest

—just plain honesty among men. Our Elgin Watches are so well known and our CREDIT PLAN so easy, that no matter where you live or how small your wages, **WE WILL TRUST YOU**, so that you and every honest man and woman can own a High-Grade Elgin watch in a beautiful Guaranteed 25-year Gold Case and wear it while paying for it in such small payments that you never miss the money. **WRITE TODAY FOR OUR BIG FREE WATCH CATALOG.** It tells all about our easy credit plan and how we sell Elgin 19-Jewel B. W. Raymond and 21 and 23-Jewel Elgin Veritas everywhere on Free Trial without security or one cent deposit, **Positively GUARANTEED** to pass any Railroad inspection. **HARRIS-GOAR COMPANY, 1528 Grand Ave. Kansas City, Mo.**

DIAMONDS ON CREDIT WATCHES LOFTIS SYSTEM

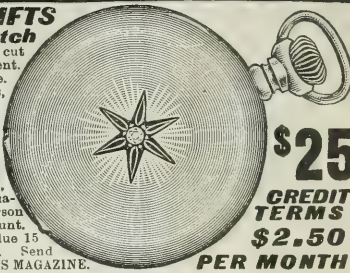
GIFTS FOR THE JUNE BRIDE AND GRADUATION GIFTS

A Diamond Brooch, Locket, La Valliere or Diamond-Set Watch
Our Great Special—Ladies' Watch Solid Gold, polished, raised star; Genuine Diamond, perfect in cut and full of fiery brilliancy; choice of Elgin or Waltham movement.

Extraordinary value at \$25. Easy payments, \$2.50 per month. Guaranteed to keep accurate time. Write for Our Handsome Free Catalog containing over 1500 beautiful illustrations of Diamonds, Watches and Artistic Jewelry. Select any article you would like to own or present as a gift to a loved one: it will be sent on approval to your home, place of business, or express office, without any obligation whatever on your part. If satisfactory in every way, pay one-fifth down and keep it, balance in eight equal monthly amounts. If not satisfactory, return it. We pay all charges and take all risks. Our prices are the lowest. Our terms are the easiest. An Account with Us is a confidential matter. Our customers use their charge accounts with us year after year, finding them a great convenience at such times as anniversaries, weddings, birthdays, graduations, etc. Any honest person may open a charge account. Diamonds increase in value 15 to 20 per cent each year. Send for free copy of the LOFTIS MAGAZINE.

like to own or present as a gift to a loved one: it will be sent on approval to your home, place of business, or express office, without any obligation whatever on your part. If satisfactory in every way, pay one-fifth down and keep it, balance in eight equal monthly amounts. If not satisfactory, return it. We pay all charges and take all risks. Our prices are the lowest. Our terms are the easiest. An Account with Us is a confidential matter. Our customers use their charge accounts with us year after year, finding them a great convenience at such times as anniversaries, weddings, birthdays, graduations, etc. Any honest person may open a charge account. Diamonds increase in value 15 to 20 per cent each year. Send for free copy of the LOFTIS MAGAZINE.

LOFTIS
BROS. & CO. THE OLD RELIABLE ORIGINAL DIAMOND
AND WATCH CREDIT HOUSE
Dept. F 681 92 to 98 State St.,
CHICAGO, ILL.
Branches: Pittsburg, Pa., and St. Louis, Mo.



Are Your Eyes Affected in Any Way?

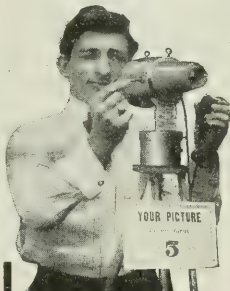
IF SO, LET US SEND YOU

THE IDEAL SIGHT RESTORER

THE NORMAL EYE For 10 days at our expense

IT helps Nature in a purely natural way to strengthen the eyes and restore the natural vision. Its action is in the nature of a gentle massage, which stimulates the eyes by restoring the normal circulation of blood—that is all that weak eyes require. But it does more—it molds the eye painlessly but surely to its perfect shape. This is necessary to correct near-sight, far-sight, astigmatism, and kindred defects. It is absolutely safe—it does not come in direct contact with the eyes; and five minutes' manipulation, in your own home, twice a day, is all that is necessary to counteract eye strain and headache, and relegate eyeglasses to the rubbish box. Throw away your eyeglasses. See nature, and read with your naked eyes. Write for instructive booklet No. 175 F and 10 days' test to

THE IDEAL CO., 134 West 65th St., N. Y.



\$50 Weekly Profit

This is what hundreds of our operators are now earning. Why not you?

The Wonder Cannon Camera

is the biggest money-making device on the market, for carnivals, picnics, fairs and street parades, on street corners, and in fact everywhere people gather.

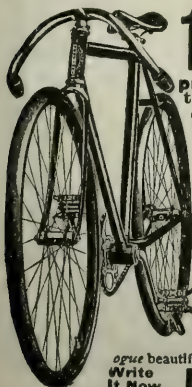
The Cannon Camera makes 8 finished photo buttons in one minute, ready to wear.

Positively No Experience Required

Complete instructions go with every outfit and are simple enough to enable you to learn the business in 30 minutes.

Only \$25 needed to start this big, pleasant, profitable business. This pays for complete outfit which consists of **Wonder Cannon Camera**, Tripod and supplies for making 400 finished photo buttons that sell for 10c and 15c each—cost 2c each. Selling the finished button picture at only 10c nets \$40.00. This leaves a good profit above the original investment besides the ownership of the **Cannon Camera** and Tripod.

Additional Button Plates \$1.00 per hundred
Additional Gift Frames \$1.25 per gross
Don't Delay! Write Today For Our
FREE CATALOG
Chicago Ferrotype Co.
Dept. 126 Chicago, Ill.



10 DAYS FREE TRIAL

prepaid, to any place in the United States without a cent deposit in advance, and allow ten days free trial from the day you receive it. If it does not suit you in every way and is not all or more than we claim for it and a better bicycle than you can get anywhere else regardless of price, or if for any reason whatever you do not wish to keep it, ship it back to us at our expense for freight and you will not be out one cent.

LOW FACTORY PRICES We sell the highest grade bicycles direct from factory to rider at lower prices than any other house. We save you \$10 to \$25 middlemen's profit on every bicycle. Highest grade models with Puncture-Proof tires, Imported Roller chains, pedals, etc., at prices no higher than cheap mail order bicycles; also reliable medium grade models at unheard of low prices.

RIDER AGENTS WANTED in each town and district to ride and exhibit a sample 1910 "Ranger" Bicycle furnished by us. You will be astonished at the wonderfully low Prices and the liberal propositions and special offer we will give on the first 1910 sample going to your town. Write at once for our special offer. **DO NOT BUY** a bicycle or a pair of tires from anyone at any price until you receive our catalogue and learn our low prices and liberal terms. **BICYCLE DEALERS**, you can sell our bicycles under your own name plate at double our prices. Orders filled the day received. **SECOND HAND BICYCLES**—a limited number taken in trade by our Chicago retail stores will be closed out at once, at \$3 to \$8 each. Descriptive bargain list mailed free.

TIRES, COASTER BRAKE rear wheels, inner tubes, lamps, cyclometers, parts, repairs and everything in the bicycle line at half usual prices. **DO NOT WAIT**, but write today for our Large Catalogue containing a great fund of interesting matter and useful information. It only costs a postal to get everything.

MEAD CYCLE CO. Dept. P31, CHICAGO, ILL.

AGENTS

Phenomenal opportunity to make big money quick. Get an appointment. It will make you independent—you will always have abundant money, pleasant position, and your time will be your own. **No Experience Necessary.** Honesty and industry is all we require.

LISTEN: Edw. McGough, Ohio, says: "Made \$160 last week. Easiest thing in the world. Everybody buys. Everybody satisfied—me best of all." E. J. Durr, Mich., says: "Never dreamed of anything selling so easily. 18 orders one day—profit, \$22.50. No trick at all. Just show and take the money." **That's the way it goes—every man coming money.** F. J. Baughman, Ohio, says: "Sold 15 first day. Going fine, fine, FINE, ship 250 at once. Hurrah for more business." L. C. Gordon, Ind., telegraphs: "Ship 150 today. All sold out. Everybody wants to buy." **Wonderful opportunity. We offer honest, ambitious men a chance to make thousands of dollars.** No matter where you live, write at once. Don't delay. Territory going fast. O. R. Joy, Ill.: "Started out 10 a. m., sold 14 by 3 o'clock." You can make

\$4000.00

this year selling the U. S. Fire Extinguisher to homes, factories, schools, stores in your territory. Amazing invention. Marvelous combination of mechanical and chemical forces. Kills fire in the wink of an eye. **Absolutely guaranteed.** Sells on sight. New field. Everybody needs it. Saves life, property, insurance. Stupendous money maker for agents, general agents and managers. Exclusive territory, protection, co-operation, assistance. 166 2-3 percent profit. **No Risk.** Fascinating. Permanent.

You need absolutely no experience. We teach you how to make one-minute demonstration that surprises, startles and amazes everybody. We want a good man in every territory to fill orders, appoint, supply, control sub-agents. Get an appointment at once.

SEND NO MONEY. Only your name and address on a postal card for complete information, offer and valuable statistics on fire losses **Free.** Investigate. **Write at Once.** Give name and county.

THE UNITED MFG. CO.,
145 Mill St., LEIPSI, OHIO
Reference, Bank of Leipsic. Capital, \$1,000,000

THE U. S. DRY CHEMICAL FIRE EXTINGUISHER



Send Today for this big Gun Guide Book and Catalog—It's FREE




Every man and boy should have this book. Besides giving much valuable and interesting information to the gun lover as to the care and manufacture of fine arms—it shows, arm by arm, with explanatory detail, the largest line of revolvers, rifles and shotguns made, including the

U. S. GOVERNMENT TESTED Hopkins & Allen Triple Action Safety Police Revolver

—the only absolutely accident proof revolver made. Thirty-four pages of gun lore with handsome cover in colors.

You need this book if you shoot, or even plan to have a gun or revolver. Send us a postal today. It's free.

THE HOPKINS & ALLEN ARMS CO.
58 Chestnut Street Norwich, Conn.



SOUPS, STEWS AND HASHES

are much improved by adding


LEA & PERRINS SAUCE

THE ORIGINAL WORCESTERSHIRE


A rare relish for Fish, Meats, Game, Salads, Cheese, etc.

JOHN DUNCAN'S SONS, Agts., N. Y.

WHITE VALLEY GEMS



No. 114 1Kt. Gem Solid Gold
Tiffany, \$10.00



No. 163 1Kt. Gem Solid Gold
Belcher, \$15.00

No. 103 1Kt. Gem Solid Gold Stud, \$10.00

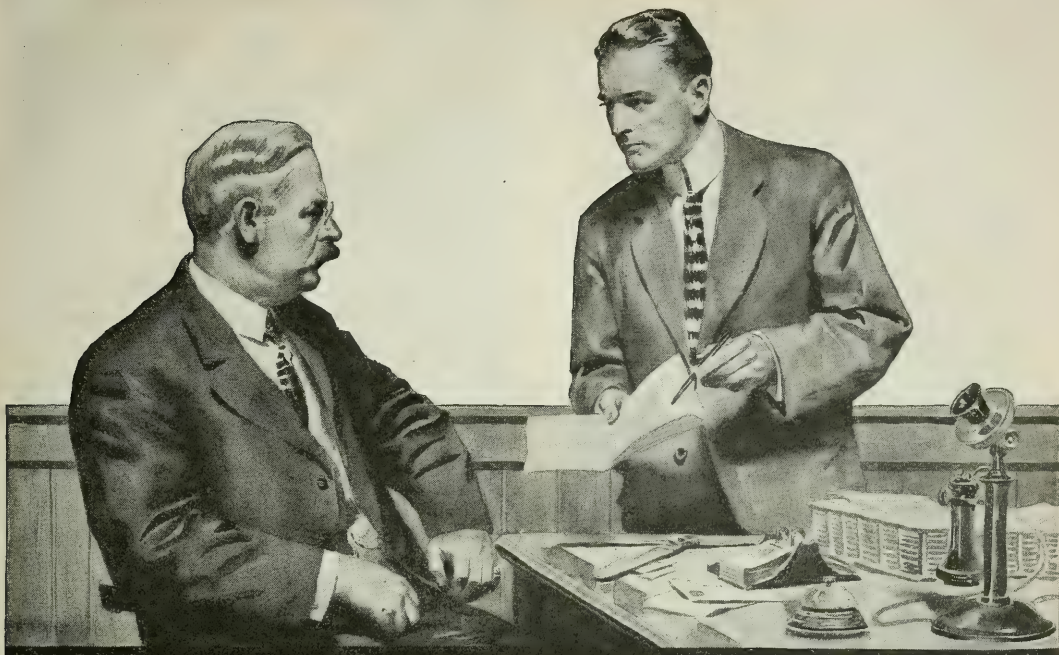
See Them Before Paying

These gems are Chemical White Sapphires and **can't** be told from diamonds except by an expert. So **hard** they **can't** be filed, so will wear **forever** and retain brilliancy. We want you to see these gems—we will pay all expenses for you to see them.

Our Proposition

—We will send you either rings or stud illustrated—by express C. O. D. all charges **prepaid**—with privilege of examination. If you like it, pay the express man—if you don't, return it to him and it won't cost you a cent. Fair proposition, isn't it? All mounted in solid gold, diamond mountings. **Send for Booklet.**

WHITE VALLEY GEM CO.
904 HOLLIDAY BUILDING, INDIANAPOLIS, IND.



When the Boss “Wants to Know”

WHEN the boss consults you on some important matter you don't have to “guess,” “suppose,” “think,” or “believe,” but you can tell him instantly what he wants to know if you have the training such as the International Correspondence Schools can impart to you *in your spare time*.

And, after all, it is the ability to furnish the right information at the right time that raises your salary and wins you promotion.

IF your present position is one that does not call for *expert knowledge* or does not hold out any chance of advancement, the I. C. S. will train you for one that *does—and in the line of work you like best*. You will not have to quit work or buy any books, ten thousand miles away, and will train you *right in your own home* for a better position, *more money—SUCCESS*. Mark the attached coupon and learn how the I. C. S. can do it.

THAT an I. C. S. training is real, *helpful*, *SALARY-RAISING*, is *proven* beyond doubt by the monthly average of 300 letters VOLUNTARILY written by students reporting *MORE MONEY* as the *direct result* of I. C. S. help. The number heard from during March was 302.

Can You Read and Write?

IF you can but read and write the I. C. S. has a way to *help you*. Mark the coupon and learn how. Marking the coupon entails no expense or obligation. Its purpose is that you may be put in possession of information and advice that will *clear the way* to an I. C. S. training, no matter how limited your spare time or means may be.

INTERNATIONAL CORRESPONDENCE SCHOOLS, Box 1003, SCRANTON, PA.

Please explain, without further obligation on my part, how I can qualify for the position before which I have marked X.

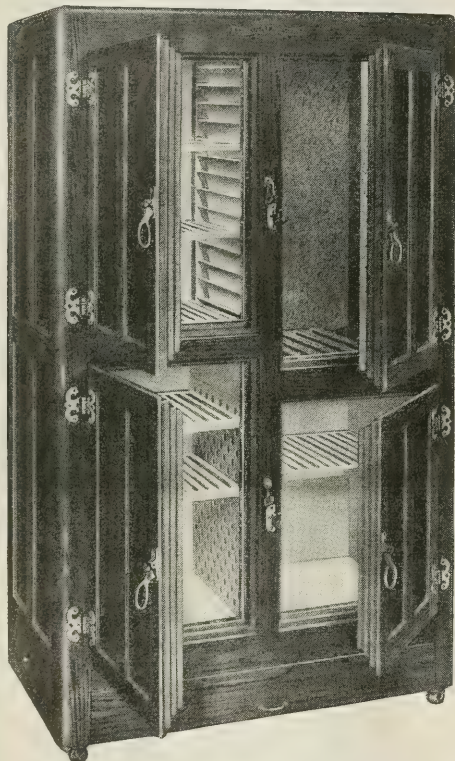
General Foreman
E. R. Shop Foreman
E. R. Traveling Eng.
E. R. Trav'g Fireman
Locomotive Engineer
Air-Brake Instructor
Air-Brake Inspector
Air-Brake Repairman
Mechanical Engineer
Mechanical Draftsman
E. R. Construction Eng.
Surveyor
Civil Engineer
Banking

Electrical Engineer
Machine Designer
Electrician
Mining Engineer
Mine Foreman
Foreman Machinist
Chemist
Assayer
Architect
Bookkeeper
Stenographer
Ad. Writer
Chicken Farming
Concrete Engineer

Name _____
Employed by _____ R. R. _____
Employed as _____
Street and No. _____
City _____ State _____

Your Greatest Help in Reducing the Cost of Living

is a refrigerator that will keep your food fresh and pure with the least trouble and the least expense for ice.



Bohn Syphon Refrigerators

lined with Genuine White Porcelain Enamel—not paint—are the easiest to keep sweet and clean. Wiping with a moist cloth is the only labor. Much so-called enamel is merely enamel paint, has not the glossy surface of genuine porcelain enamel, and in a short time discolors, cracks and peels off into the provisions.

Bohn Syphon Refrigerators use the least ice and keep food absolutely fresh and uncontaminated because they are built with perfect insulation to keep out the heat and perfect air circulation to keep the inside dry and cool. A wet cloth hung in the provision chamber will dry more quickly than in the outside air. Remember, it is dampness which spoils food, melts your ice, and makes your refrigerator unsanitary.

The health of your entire household depends on the refrigerator you keep your milk and butter and meat and vegetables in. Therefore, you ought to know exactly how it is constructed.

Send for our illustrated Catalog telling what everyone should know about refrigerators, for their health's sake.

Sold by the Responsible Dealers

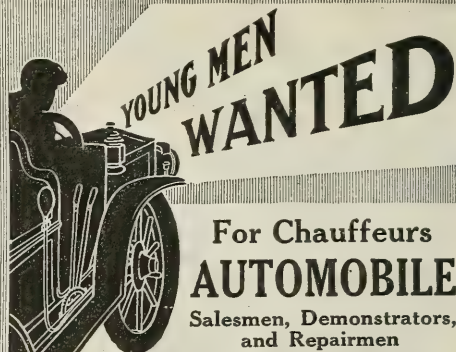
Use This Margin to Send for Catalog

NAME.....

ADDRESS.....

White Enamel Refrigerator Co.

ST. PAUL, MINN., U.S.A.



For Chauffeurs AUTOMOBILE

Salesmen, Demonstrators,
and Repairmen

EARN \$25 TO \$50 WEEKLY

Demand for these trained men can't be supplied. The work is pleasant and instructive, out-of-doors, and the hours short. You can prepare yourself for one of these positions in 10 weeks by a few hours' study each week. We teach you the entire subject by our simple course of instruction by mail. It is very interesting, practical and thoroughly efficient because it's personal. Ask our graduates who are earning \$25 weekly or more in positions we obtained for them.

First Lesson Is Free

Write for it to-day.

Let us prove our claims.

Empire Auto. Institute, 335 Empire Bldg.

The Original Automobile School

Rochester, N. Y.

Chauffeurs and competent men furnished owners and garages.

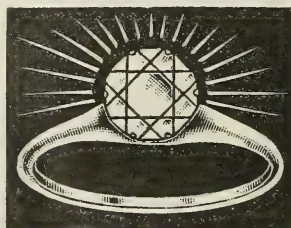
MEXICAN DIAMONDS

Look As Well

Wear As Well

Cost 80% Less

Than Genuine Diamonds



Experts can seldom distinguish between the two. Mexican Diamonds stand acid tests, are beautifully cut and polished, and guaranteed permanently brilliant. To prove our claims, we will send for FREE examination, by express, C. O. D., at Special Introductory Prices, No. 2500

Ladies' Tiffany Ring, $\frac{1}{2}$ -carat Mexican Diamond, \$4.98. No. 2501, same, but 1-carat, \$7.76. No. 2550, Gents' Round Belcher Ring, $\frac{1}{2}$ -carat, \$6.94. No. 2551, same, but 1-carat, \$11.36. All rings solid gold. State size and we will forward ring immediately with guarantee. 10 per cent discount if cash accompanies order. If not satisfactory, return in 3 days for refund.

Write today for Free Illustrated Catalogue—it will interest you.

MEXICAN DIAMOND IMPORTING CO.

Dept. ER 6, Las Cruces, New Mex.

Exclusive Controllers of the Mexican Diamond.

Poplin Four-in-Hands

The Ties Fifth Avenue Pays \$1 for, I sell at

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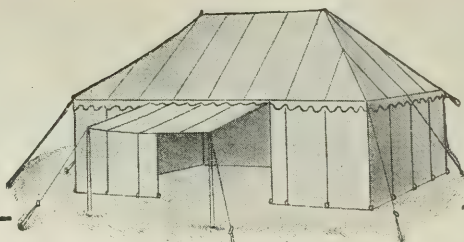
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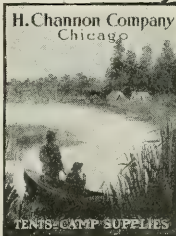
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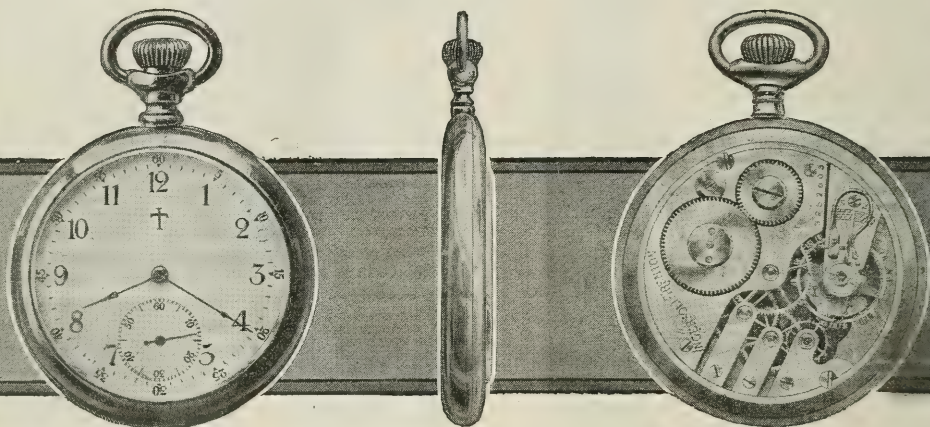


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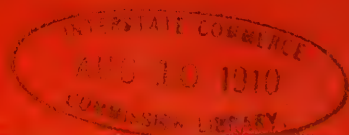
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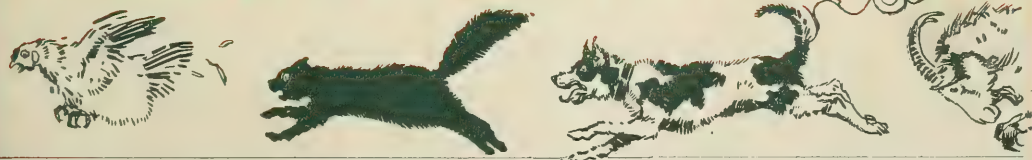
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THE RAILROAD MAN'S MAGAZINE



MASCOTS OF THE RAIL



The Master Mechanic


By ROBERT H. ROGERS

A Lesson in Railroad Construction

J U L Y

THE FRANK A. MLINESEY COMPANY NEW YORK AND LONDON

PEARS

A black and white woodcut-style illustration of a woman's head and shoulders in profile, facing right. Her hair is styled in two thick braids that rise above her head and are held together by decorative bows. She is holding a tray with both hands, which contains three bars of soap. One bar is round and textured, while the other two are rectangular and have the word 'PEARS' embossed on them. The background is dark with some decorative elements, including a fleur-de-lis on the right. The entire scene is framed by a thick black border.

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THE RAILROAD MAN'S MAGAZINE

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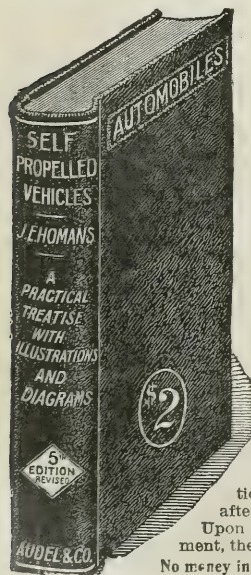
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THE RAILROAD MAN'S MAGAZINE

Vol. XII.

JULY, 1910.

No. 2.

Mascots of the Rail.

BY WALTER GARDNER.

BASEBALL-PLAYERS, soldiers, and sailors are not the only men who attempt to ward off their Jonahs and bring good luck to themselves by keeping mascots. Railroad men from the beginning have shown a leaning toward animal protégés; and, though a goat trailing his whiskers about a roundhouse, or a dog riding in an engine-cab, would seem apt to prove anything but a hoodoo-killer, the little god of luck sometimes works things out peculiarly.

In the days when discipline was not so rigid as at present, and so long as the men got their trains over the road on time, the officials did not concern themselves particularly about what the men did. A cock-fight in the roundhouse-pit did not bring about the severe jacking up that it would now. In the early seventies, and even later, mascots were privileged characters, and train-crews often carried them on their runs from one division to another.

How a Goat Butted Into a Romance, and How the Strange Intuitions of a Cat and Dog Made History on the St. Louis, Iron Mountain and Southern.

TAKE the deuce and hook on to the wrecker, Jimmie."

"What's the matter now?"

"Fifteen is in the ditch on Lone Tree Hill."

"Wonder 'twasn't 17. That's the hoodoo train on this road. What's the matter with 15?"

"Broke in two at the summit, and; about half-way down, the front trucks of the tail-end climbed the rail."

"He must have piled them well to need the wrecker."

"What can you expect when the crew haven't a mascot?"

"Oh, come off the perch, Walt. What's a mascot got to do with it?"

"Oh, nothing, so far as I know. But you know that is the only train on this road whose crew hasn't a mascot of some kind."

"I don't believe in this mascot business. I don't say there is anything in it; but, back in the seventies, the boys at the Fredericktown roundhouse had a great assortment of animals — a little zoo of their own."

"Well, what of it?"

"You know that Fredericktown was the division on the Belmont branch of the St. Louis, Iron Mountain and Southern. At that time the furnaces at Iron Mountain, on the Texas branch, were running full time, turning out pig, and the result was that traffic was constantly increasing. The boys had pigs, dogs, cats, goats, and a rooster."

"Fine lot of farmers that gang must have been."

"They were all to the good, just the same. Well, one of the chief moguls around that roundhouse was a full-grown goat that the boys had named Murphy, after the roadmaster. Murphy wore a goatee, and so did the goat. Murphy did not like it, but he knew better than to cheep. So Murphy, the goat, ranged in and out of the roundhouse at his own sweet will, and Murphy, the roadmaster, never showed up there if he could help it.

"The boys had teased the goat until they had him trained so that the unfortunate who had occasion, in the course of his work, to stoop to pick up anything, while Billy was in range, was sure to get a salute.

"Jerry Phalen, who was firing the 30, came in on No. 1 from St. Louis. While the hostler was setting the 30 in her stall, Jerry was shucking overalls and jumper, and getting ready to wash up.

A Goat with a Purpose.

"Jerry wore a red flannel undershirt, and when the engine was set in her stall he took the tender bucket and drew it full of water; then climbed down to the floor. It being a cold day, he picked up a link and put it in the stove until it was red hot, then dropped it into the pail of water, heating it up so he could have a good wash.

"Murphy sat on his hunkers, a few feet from the stove, chewing his cud and wagging his beard. He paid no attention to Jerry, and Jerry did not give him a thought.

"Jerry set his bucket of water on the floor some little distance from the stove, and in the position he occupied he was just forward of the 30's leading drivers. He got a bar of soap, and had just worked up a nice lather, which he was

applying to his head and neck, when Murphy landed.

"He struck Jerry square, and Jerry went over the bucket, under the connecting-rod, and into the pit. The flooring was even with the crown of the rail on the outside of the pit, and the planking was slippery with the grease that had dripped from the boxes.

"Jerry's hands were also soapy, so there was nothing he could catch to check himself. He struck the opposite side of the pit below the rail, the pit being walled with brick, and fell to the bottom in a crumpled heap.

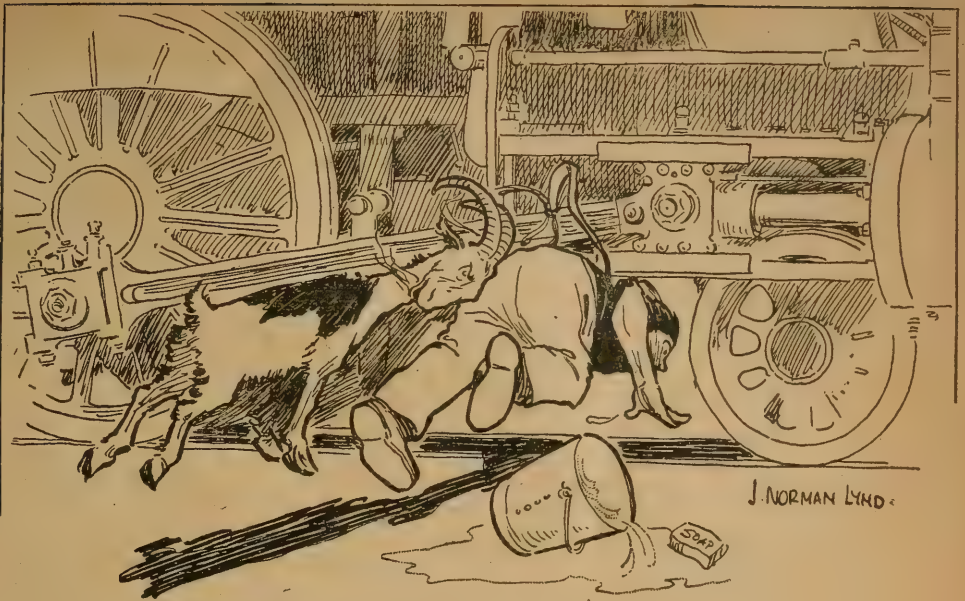
Billy Meets Murphy.

"The boys thought that he was killed, and if he had struck the side of the pit with his head he would most assuredly have broken his neck. As it was, he struck with his shoulders, and when the boys got him out from under the engine he was found to be only stunned.

"Just across the street was a grocery-store, and over this was the Railroad Hotel, kept by the widow of a railroader and her daughters. Her house was always filled to capacity by the railroaders. Murphy, the roadmaster, stopped there when in town; and Murphy, the goat, was a privileged character. In fact, he was on the best of terms with the landlady and her daughters.

"The work was too heavy for the old lady and the girls, and they hired some help. The newcomer was a jolly Irish girl named Maggie Malone, but the railroaders at once dubbed her "Biddy," and Biddy she was to the end of the chapter. Now, Biddy had not been properly introduced to Murphy, the goat, and did not know that he was a character of importance in the back yard; so, one day, when she found him turning over an assortment of tomato and fruit cans, she started after him with a broom.

"Now, Murphy, like all sensible masculines, had a wholesome respect for a broom, especially when it was wielded by a buxom Irish girl. He gravely and sedately retired to the alley where he stood wagging his beard and surveying Biddy closely until she vanished into the kitchen, when he returned to the roundhouse. Murphy was sensible, and could



"JERRY WENT OVER THE BUCKET AND INTO THE PIT."

take a hint at the end of a broomstick as well as any one, so he cut out his visits to the Railroad Hotel.

"Biddy" Makes a Good Target.

"Biddy had forgotten all about Murphy until, one day, there came an order for an extra train-crew and engine 36 to take a special over the south end. Word was sent to the boarding-house to have the dinner kettles delivered at the roundhouse. So a good lunch was put up, and Biddy was sent to the house with it.

"She handed it up to Dennis O'Brien, the fireman, the two chaffing the while, and Dennis daring her to climb into the engine. But Biddy knew the work was too pressing, and, telling him she would take that dare some day when she had more time, she started back to the hotel.

"On the way she had to pass the coal-shute, and, stopping, she placed her foot on the rail and stooped over to tie a shoelace, just as Murphy came out from under the coal-shute. He wasn't the kind of a goat to decline a challenge; so he lowered his head, gathered his feet together, and launched his body-full at the unsuspecting Biddy. He struck her fair, and she pitched forward into the cinder-pit.

"Murphy at once meandered around the sandhouse, and Biddy scrambled to her feet just in time to see Dennis, who was doing his level best to keep a straight face, offering to help her out. Now, Biddy had not seen or heard anything of Murphy, the goat; so she sailed into Dennis, accusing him of bumping her into the cinder-pit, and informing him in choice Gaelic that he was no gentleman.

"The more Dennis tried to explain the more voluble she became, and finally, as he thought of her flying leap into the cinder-pit, he could restrain himself no longer, and sat down on a wheelbarrow and fairly yelled. This was adding insult to injury, and Biddy stalked off, highly offended, followed by advice from Dennis not to wear barber-pole stockings thereafter.

Murphy's Downfall.

"Murphy showed poor judgment. He was no respecter of persons, and this led to his downfall. One day, Master Mechanic Haynes came down from Carondelet on a tour of inspection, and, after he had gone through the 'rip' shop, he was looking over the roundhouse, piloted by the roundhouse fore-

man. Engine 48 was in one of the stalls—a big, eight-wheel freight-engine. Her right cylinder-cocks were not working smoothly for some reason, and, just as the two came up to the engine, the roundhouse foreman was handed the engineer's report. The two men stopped by the cylinder, and, with his left hand on the pilot-beam, Haynes leaned over to look at the cylinder-cocks just as Murphy came around the nose of the pilot.

"Murphy backed off a few feet, and hit the master mechanic fairly and squarely, sending him down on his hands and knees, barking his hands and seriously fracturing his dignity. Then the storm broke. The air fairly sizzled, and Haynes showed a command of strong language that none of the boys had ever imagined he possessed. Murphy passed on, calmly chewing his cud and wagging his beard, as innocent as a babe; but his fate was sealed. The word was passed to remove Murphy from this vale of tears, and from thenceforward and forever, no goats were to be allowed in or around any roundhouse on the system.

"The boys were sorely tried. They could not bear the idea of death for Murphy, and the question of selling him was not to be considered, for Murphy

was too old and tough to make into mutton, and not a man, from roundhouse foreman to call-boy, could be found who would act as executioner.

"A consultation was held, and it was decided that Dennis O'Brien and Mike Fitzgerald should take Murphy aboard the 36 when she pulled out on No. 1 over the south end, and at a favorable opportunity, where they thought Murphy was likely to find a good home, drop him overboard and let him shift for himself.

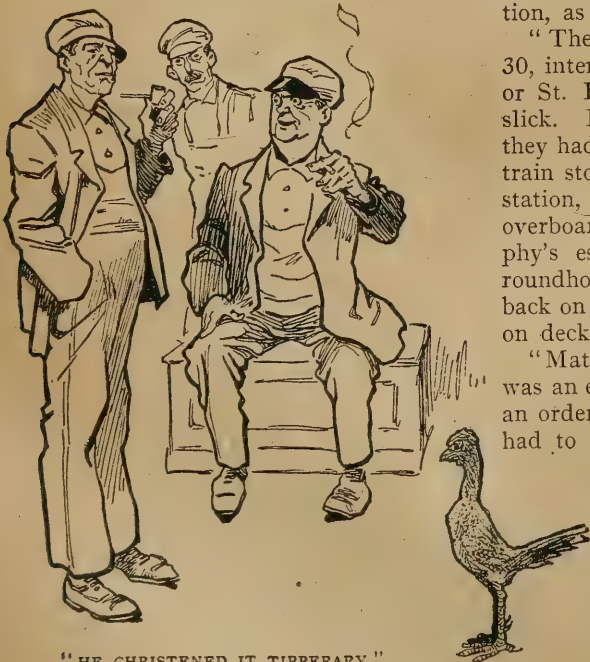
"They got Murphy up into the gangway of the 36 with no trouble, but Murphy was not inclined to stay; so they tied him to the brakestaff with a cord and pulled out on No. 1 on time.

"Now, Mike and Dennis should have known enough about goats to know that nothing but a chain will hold the brute if he takes a notion to leave; so, when No. 1 stopped at the depot at Marquand, away went Murphy, with the frazzled end of the cord, which he had chewed in two, still flying from his neck.

"The boys thought it was all right, and wired from the next stop that Murphy had got away and deserted at Marquand, and went on to the end of the run, coming back the next day on No. 2. When the 36 was run into her stall, there was Murphy, superintending the operation, as was his usual custom.

"Then Jerry Phalen took him on the 30, intending to carry him to Carondelet or St. Louis. But Murphy proved too slick. He worked out of the dog-chain they had tied him up with, and when the train stopped at Mine La Motte, the first station, four miles north, Murphy went overboard and took to the timber. Murphy's escape was duly reported to the roundhouse gang, and when the 30 came back on No. 1, the next day, Murphy was on deck as usual.

"Matters were getting serious. Haynes was an easy-going man, but when he gave an order it had to be obeyed or somebody had to suffer. The boys did not know what to do. Killing Murphy was not to be thought of; so Will Allen, who was running baggage and express from St. Louis to Belmont, and who had heard of the escapades of Murphy, as, indeed, had every man in the service, suggested a plan.



"HE CHRISTENED IT TIPPERARY."

"No. 1 and No. 2 met at Fredericktown, and had twenty minutes for dinner. So, during the stop, one day, he told the boys to put a tag on Murphy addressed to Frank Johnson, who was running baggage on the Cairo, Arkansas and Texas, the "cat" road, out of Cairo, and he would see him on this trip and arrange with him to take Murphy and pass him on to the next baggageman, and thus get him far enough away so that he could not get back.

"When Allen came north on No. 2, the next day, he told the boys to have Murphy ready for him the next trip—which would be two days later, as he had his lay-over in St. Louis—and that Johnson would transfer him to the Little Rock run at the Little Rock and Memphis junction. So, when he came down on No. 1, Murphy was duly installed in a corner of the baggage-car, and fastened so that it was impossible to get away.

"He was turned over to Johnson, who took him down over the cat road to the Little Rock and Memphis; and the baggageman there took him on to Little Rock. What finally became of Murphy none of the boys ever heard.

A Mix-Up Between Mascots.

"Murphy's successor was a Spanish red game-cock, which a lad living at Mine La Motte, and attending school in Fredericktown, gave to Jerry Phalen. Jerry was very proud of the bird, and boasted that he could lick anything that wore feathers. He christened it Tipperary, and arranged with Biddy that she was to feed him and see that he was taken care of while he was absent on his runs. Biddy in time became very fond of Tipperary, and he was soon a pet in and around the roundhouse, as well as at the boarding-house.

"Dennis O'Brien, who fired the 36, ran opposite Jerry and the 30; and when the 30 was cut from her train and the 36 backed down to hook on, the two used to chaff each other considerably, and Dennis boasted that he had a black game-cock at Belmont that could and would wallop Tipperary.

"As 36 ran on the south end and the 30 on the north end, there did not seem to be much chance for the two to get to-

gether; for when Jerry came in Dennis went out, and the boys began to demand that Dennis make good by showing up his game-cock.

"One day Dennis came in on No. 2, and as his engine was set in her stall he climbed down with a crate in his hand in which there was a sure enough game-cock. Dennis told the boys that he was named Donegal, and that Donegal could lick Tipperary any day in the week and not half try.

"Now, some of the boys were from Tipperary, some from Donegal, but the bulk of them were from other parts of Ireland. It was not long before the men were lined up according to their preference, and the majority were in favor of Tipperary. Whether it was a test of the popularity of the two men, or whether the preference was caused by the recollections of the 'ould dart,' was a question that was an open one.

"One day the 30 dropped her crown sheet as she was coming in on No. 1 and went into the 'rip' shop, while another engine took her run for one trip. This was the opportunity that the boys had been waiting for, and the wires soon flashed the news to the boys on both divisions that Tipperary and Donegal were to settle the question as to which was the better bird at two o'clock that afternoon. This time was chosen, for No. 1 and No. 2 were both out of the way, and there was nothing due until 4.30 P.M.

Tipperary Turns the Trick.

"One of the pits in a vacant stall was selected as the battle-ground, and Jerry got down at one end with Tipperary, while Dennis, with Donegal, occupied the other. The enginemen, wipers, station-men, and all the men in railway service who could get away crowded around the pit, and the fight was promptly begun.

"Tipperary was slow, and Donegal forced the fighting, getting in a crack on Tipperary that sent him staggering. Jerry took him up and handled him carefully, but it was plain to all that Tipperary was mad clear through. When the birds were released they went at each other, but neither scored. Then Tipperary, with wings dragging, flew at Done-

gal, and struck him with his left gaff, sending the spur clear through Donegal's head.

"A considerable amount of money had been wagered, not only in Fredericktown, but along the whole branch. The odds were largely in favor of Tipperary, though why was never understood. From that time forward Tipperary was cock of the walk. One morning Biddy went out into the yard and found Tipperary dead, his throat having been cut by some animal, presumably a weasel. Jerry took the body to a taxidermist in St. Louis and had it mounted, and placed it on the boiler-head, above the steam-gage, in the 30's cab.

Cupid Gets Busy.

"Dennis swore that Biddy had hoodooed Donegal because he laughed at her when Murphy butted her into the cinder-pit, but Biddy affirmed that Dennis was a prevaricator and that he was not to be believed on oath.

"Jerry always hit it off pretty well with Biddy though she insisted that he was well named and that he had a failin' for every girl he met. As time went on it seemed to be an open question as to which stood the highest in the graces of the fair Irish girl, Jerry or Dennis. None of the boys could settle the question, for when Dennis was in he and Biddy were always sparring.

"One day Dennis came in on No. 2, and as the 30 backed down and hooked on, he said, just as Jerry swung up on to the footboard:

"'You had better fix it up with that Carondelet girl, Jerry, or you will be left in the race.'

"Jerry told him not to worry about the Carondelet girl, and No. 2 pulled out. Dennis went over to the roundhouse and washed up, then went to the hotel for his dinner.

"That afternoon some of the boys saw him and Biddy going up-town together, but they thought nothing of it at the time, but at the supper-table another girl was waiting on the table and the landlady told them that Dennis and Maggie Malone had been married that afternoon, Dennis had got a two weeks' layoff and they were going to St. Louis on No. 4.

"Jerry was a great fellow for animals, except cats. He never had much use for cats, and his next venture in the pet line after Tipperary's death was a dog, one of these little, yellow, tin-can-to-tail sort of animals.

"He came into the roundhouse at Fredericktown one day, chased by an empty can that some boy had tied to his stub of a tail. He did not have much of a narrative to speak of.

He was just about all in, and as he staggered into the roundhouse with that tin-can continuation thumping behind him, he happened to turn into the stall where No. 30 was standing, the wipers having just fired her up to go north on No. 2.

"This was in the early seventies and in those days it was the practise to get as much brass as possible on an engine. Sand-box, dome, cylinders and steam-chests were brass-jacketed and the firemen were expected to put in their leisure time around the roundhouse in keeping a bright shine on them.

"Engine No. 30 had a fair share of brass about her, and her drivers, truck and tender-wheels were painted a brilliant red. In fact she was as pretty as a country girl at a county fair, but it kept Jerry pretty busy keeping her bright and smart.

Jerry was an Irishman, and while he was fond of the fair sex in general, so far as the boys knew the only things on earth that he really cared for were Harry McQuaide, his engineer, and engine 30.

Just a Yellow Dog.

"Jerry, smoking a short, black, clay pipe, and clad in overalls and jumper, was busily engaged in polishing up a cylinder-jacket when the yellow dog put in an appearance. The brute staggered up to Jerry, sank back on his hunkers, and looking up into the fireman's face, whined piteously.

"Something about the forlorn aspect of the brute, or it may have been the plaintive appeal to his sympathy, attracted Jerry's attention. He took his pipe from his mouth, looked at the dog for a minute, and said:

"'Poor devil. You are in hard lines, ain't you?'

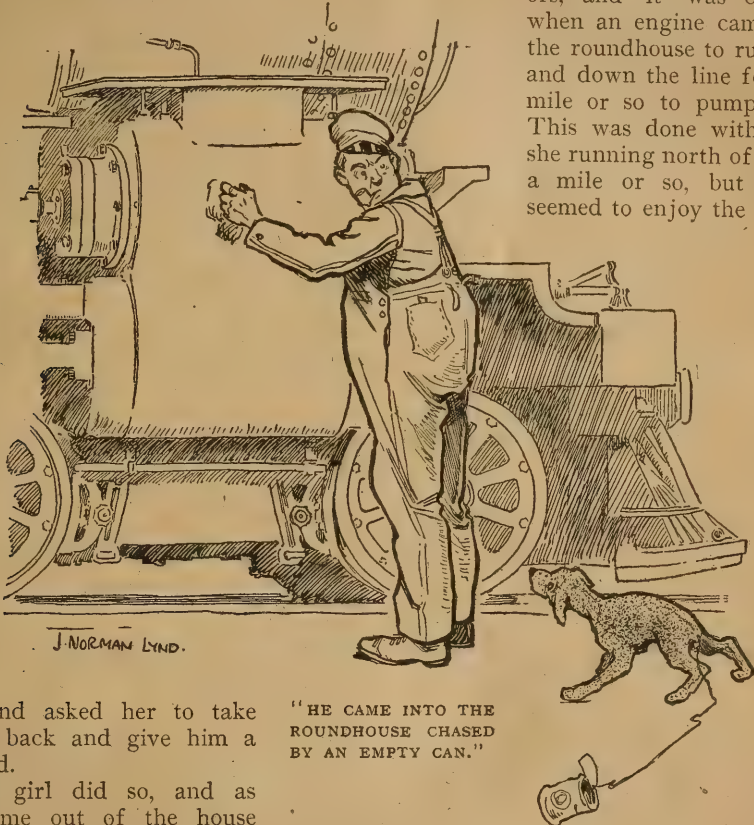
"The dog looked at him piteously.

"He patted the dog's head and then, taking his knife, cut the cord that attached the can to the stub of a tail, which the dog kept thumping on the floor.

"It was about noon and Jerry started for his boarding-house. As he was entering the dining-room he met the girl who had taken Biddy's place in the

"The hostler climbed on the engine, and took her out to the turntable, turned her and ran her out to the coal-chute track where she was coaled up, but the dog seemed to be fully satisfied with his surroundings.

"The leaving time of No. 2 was 1.45 P.M. This was before the day of injectors, and it was customary when an engine came out of the roundhouse to run her up and down the line for half a mile or so to pump her up. This was done with the 30, she running north of the town a mile or so, but the dog seemed to enjoy the situation.



J. NORMAN LIND.

house, and asked her to take the dog back and give him a good feed.

"The girl did so, and as Jerry came out of the house after dinner the yellow dog was waiting for him beside the door. Jerry went on to the roundhouse, and, followed by the dog, climbed into the cab, looked at his fire, and got ready for his run to St. Louis.

Couldn't Feeze the Dog.

"The dog sat on the floor for awhile, but receiving no further attention from Jerry, he leaped up into the gangway and up on to the fireman's seat. Jerry thought that when the engine began to move that he would get frightened and leap off. But he was not that kind of a dog.

"HE CAME INTO THE ROUNDHOUSE CHASED BY AN EMPTY CAN."

When Jerry backed the engine down to the depot, just as the 36 had pulled on to the siding, Dennis called:

"Jerry, don't name the dog Donegal."

"You can bet your sweet life I won't. He's too yellow."

"Then Harry McQuaide, the engineer, swung into the gangway, and the first thing that he spied was the yellow dog.

"Hello, Jerry," he said, "where did you get the pup?"

"Huh. I didn't get the purp. He got me."

"Then he told Harry about the tin

can episode and how the brute seemed determined to keep close to him. Harry stepped across and patted the dog on the head.

"All right, Jerry. We'll keep him and call him Dick. He is the 30's mascot and we can't afford to lose him."

A Canine Passenger.

"With some waste they fixed up a bed for him on the running-board between the fireman's locker and the door of the cab, and Dick fell into it as snugly as though he had never been anywhere else.

"All the way to St. Louis that dog sat upon his bunch of waste and kept his eyes on the track ahead. Once when a steer got on the track and Harry whistled he became excited and barked furiously until the steer left the road-bed. When they passed it Dick did not turn his head. He seemed to think that by his barking he had driven the steer out of the way, and that what happened to the bovine after that was no concern of his.

"When the train stopped at the St. Louis depot and the backup pilot came on to take the train back to Carondelet, that dog still kept his place, and when the engine was set in the house and her fire was drawn, he condescended to get down. Jerry bought him some bones and scraps of meat and he remained in the house. He would not go far from the engine, and when she was fired up and backed No. 1 up to the Plum Street depot in St. Louis, Dick was in his place on the running-board.

"It was not long until 30's mascot was known all over the division, and when Jerry and Harry were both away from the engine the hostler was the only person that he would permit to come aboard. When the engine was in the house he apparently considered that his responsibility was ended.

"The boys all petted him and endeavored to make friends with him, but while he received all their overtures in a condescending sort of way, none of them made any impression. His love and loyalty were due to Jerry and Harry in the order named, and to no others.

"Dick had been banging over the division for about six months, and his yellow

muzzle in the cab-window on the fireman's side had come to be as much a fixture as the cab itself. He never by any chance climbed up on the right side, and though Harry coaxed him over once or twice he seemed to know, by instinct, as it were, that in his place on the left side he was in no one's way.

"The 30 was coming south one day on No. 1, and just as they pulled out of Bismarck the enginemen noticed that Dick was getting uneasy, and when they swung into the long stretch alongside the St. Francis River he began to bark furiously.

"He leaped from his seat to the deck and seized Harry's trouser-leg, endeavoring to pull him away.

"Harry shook him loose but it did no good. He pulled again. Again he was shaken loose when he leaped to his place on the running-board and barked violently. He jumped to the deck again, and again seized Harry's trouser-leg, pulling with all his might to get him away from the right side.

"What's the matter with the purp?" Harry asked of Jerry.

"Don't know, unless he wants you to stop."

"Well, I'm going to see if there is anything the matter with his bed," and he crossed over to the fireman's side, while Dick leaped back to his place on the running-board and twisted himself into all sorts of shapes in an effort to show his pleasure at getting Harry over to his side of the engine.

"Just as McQuaide leaned forward to examine the bunch of waste that was Dick's bed, the right side rod snapped, and the end, whirling around like an immense flail, stripped the right side of the engine completely, ripping away the side of the cab and the running-board, from the quadrant outward.

"With the fragment of steel thrashing alongside at each turn of the driver, Harry finally managed to reach over and shut her off. He then got down and disconnected her, going into Fredericktown working his left side only.

"If Dick had not succeeded in enticing Harry away from the right side, the probability is that he would have been killed. Now the question is: Did that yellow pup know that side rod was going to snap?

"After this episode Dick owned the whole road, from St. Louis to Belmont. He grew fat and lazy, but he never missed a trip that the 30 made, and when she went into the backshop Dick took his layoff.

"None of the other runners could coax him on to their engines. He was absolutely and unqualifiedly loyal to the 30 and her crew, and especially to Jerry. It soon got so that when you would see Dick you could be sure that Jerry was near, and if you saw Jerry it was a safe bet that Dick was not far away. Dick ran on the 30 for a long time until he finally went the way that all good doggies go.

"Well, Marsh, it's up to you now. It's your turn to spin a yarn."

"All right, boys," said Marsh. "Well, as you are telling dog and goat stories, I will have to go back to the seventies, when I was firing the old 112 on the Illinois Central. Bob McQuaide was my engineer, a brother to Harry that you spoke of on the Iron Mountain, and when I passed and was set up, Bob went to the Iron Mountain, the brothers desiring to have a run on the same road.

Bob was as cool and nervy a runner as you ever saw. He had served in the Union army during the war, and had frequently been employed as a runner when it was necessary for the army to handle trains. He was not a bit superstitious.

"Our run was from Centralia to Cairo, and at that time the two best towns between the points named were DuQuoin and Carbondale, and I suppose are so yet. At DuQuoin was the junction with the St. Louis, Alton and Terre Haute, which, in connection with the Illinois Central, formed the Cairo Short Line from St. Louis to Cairo.

"The agent at DuQuoin had a black

tom cat. He was undoubtedly the largest tame cat that I have ever seen. There was not a white hair on him.

"Well, that cat took a fancy to the old 112 for some reason, and when we would pull in he would spring into the gangway and up on the fireman's seat, where he would curl up until we got to Car-



"SAT UP ON MY LOCKER AND MEOWED THREE OR FOUR TIMES."

bondale. Then he would spring to the ground and disappear until we came in on the up trip, when he would come aboard and ride back to DuQuoin.

"At that time we were pulling way freight, and had a twenty-four hour lay over at Centralia. That cat never would ride on another engine. One day the 112 had been sent into the shop for light repairs, and engine 122, off the north end, took her run. The only mistake that cat ever made was on this trip. When 122 stopped at the depot the cat sprang aboard as usual, but he went on out on the other side.

"The boys tried to coax him on to the other engines, but they could never

succeed; 112 was the only engine in his opinion. He never mistook another for her, except in that one instance. Change of the runs made no difference. Night or day, fast, through, or way freight, it was all the same to Tommy as long as 112 was pulling it.

"One day we pulled into DuQuoin, southbound, about noon. Tommy was on time as usual and sprang aboard. He sat up on my locker for a moment and meowed three or four times. Then he leaped to the ground and disappeared.

"What ails the cat?" said Bob.

"Hanged if I know. Possibly he remembered that he had an engagement with Maria, and tried to excuse himself." I answered.

"Just as we pulled out Tommy was sitting on his hunkers on the platform and he fairly squalled as we passed him.

"There's something wrong," said Bob "and that cat knows it. He tried to tell us plain as any one could."

"Oh, nonsense," I answered.

"All the same, keep your eyes peeled."

"For some reason, which I cannot explain to this day, I could not shake off the impression that something was wrong with the Big Muddy bridge, four miles north of Carbondale, but I did not mention it to Bob. As we pulled out of Elkdale, Bob said:

"Walt, I am going to stop at the Big Muddy. There's something wrong with the bridge."

"Do you know that I have had the same feeling ever since we left DuQuoin, and I cannot give any reason for feeling so," I replied.

"We'll stop all the same," he said.

"We ran to within a hundred feet of the bridge and stopped. We both climbed down and went ahead. The spring floods had piled a lot of drift against the bridge, and the water, piling up against this dam, had softened the earth and worked its way through the bank just above the north abutment, cutting the back filling out from behind the masonry and leaving an ugly hole across which the track remained suspended.

"There being no joints above the break, and the rails stretching across, the ties held up to the rails by the spikes, leaving the track apparently all right as seen from above. If we had not stopped and gone ahead we would never have discovered the washout. We would have piled all that train into the hole right on top of that engine.

"We backed up to Elkdale, reported the washout, and there we lay until the track was cribbed up so we could cross.

"Tommy resumed his trips after that, and he kept them up for some time, when he finally failed to show up, and we suppose that he was killed. All the same, 112 was his engine, and none of the boys could get him onto another, even by picking him up bodily and carrying him aboard, for he would spit and scratch, and the moment that he was released would leap to the ground as though the engine burned his feet.

"At any rate, the question before the court is:

"What did that cat know? and if he knew about the Big Muddy Bridge, how did he know it?"

GOVERNMENT MEALS, 75 CENTS.

THE Intercolonial Railway of Canada, presenting its claims to public patronage, says that—"As a government road, it is owned by the people, and in the operating of the line this principle is ever kept in view, so that the best available service will be

given." It operates its own sleeping and dining cars, and serves *table d'hôte* meals—all at seventy-five cents—which are fully up to the best furnished by railroads in the United States.—*Passenger and Agents' Journal*.

**It's harder work to pull up a steep grade than to drift down one,
but it's safer so long as you keep going forward.**

—The Tallow Pot's Diary.



FOR THIS AND FOR
OTHER THINGS AS
KINDLY, THEY
HONORED HIM.

NAILING NINETY-FOUR.

BY ROBERT FULKERSON HOFFMAN.

Something Sinister Creeps Into the Life of High Haven, and the Back-Shop Takes Action.



HIGH HAVEN had but one lynching. And as lynchings go that was not a complete success.

"There's a chink open somewheres along the ground-line of our cabin, boys," said stocky Jim Endy, elevating himself to a seat on a vise-bench between the engine-laden pits of High Haven shops.

"That's it," said old Tom Waring with an anxious note reaching almost to a quaver in his voice. "There's a slat open our coop and something's crope in!"

The little group that stood about in the few remaining minutes of that noon hour, in turn expressed this idea variously. That was the first angry swirl of talk that came eddying to the surface from the deeply disturbed undercurrent of feeling which was surging in the shops.

They were good shops and very well-manned. For many years, they had stood in all the dignity of a trusted sentinel as the railroad's last mechanical outpost in

the industrial war against the desert and the mountains.

A proud little community, whose pride gave no offense, had grown up around the shops. It had the just pride of attainment in the face of very great odds, having, normally, a peace and contentment keyed high with the tang of the clear upper air.

True, it had its little lines of social demarcation and, occasionally, some small dissension. For example: Mrs. Mahalie, wife of Jim Mahalie, who ran the limited turn and turn about with Nick Botts, might not speak to Mrs. Botts for several days, while the acrimonious discussion was on as to who "burned up the driving-boxes" on engine 1003.

But such things were sporadic. They ran their short course and left no permanent hurt. The little ripples of disturbed feelings subsided in due time, and High Haven resumed its wonted pride of calm.

The men tactfully calmed the teapot tempests which, from time to time, loomed large upon the women's horizon

—and quarreled sociably over their own small differences.

This, it will be seen, was all quite as it should be and, on the whole, High Haven had made its impress deeply upon the road's affairs. Its good name had gone afar, even, in the person of Tom Waring's stripling son, it had substantially reached the general manager's office. The young man, as file clerk, was making good in Chicago, and High Haven listened with shining eyes when old Tom sometimes unbent to speak of the boy's little trials and tribulations and successes.

Yes, High Haven had been both proud and happy. But, now, this stealthy trouble—something which it did not understand—was creeping upon the little town.

One by one, in quick succession, the older men were being weeded out of the shops and made derelicts. They lined up along the picket-fence at the railroad station, breaking their hearts while they tried bravely to smile when the limited whisked in and out again behind engines which their hands had lovingly built and petted to perfection.

One by one, the honest but sometimes outspoken younger men were being turned adrift and disappearing into the world of work beyond the mountain, while strange faces of still younger men were taking their places in the shops.

When pressed for a reason for these things, the master mechanic looked troubled and walked away with his chin upon his breast unanswering, for the first time, in High Haven's knowledge of him.

The root of the trouble grew far away—as far as Chicago, even—and High Haven was tasting the first bitter fruit of that growth.

It began with a yellow-looking circular letter that came in the general manager's daily grist of mail. The letter-head seemed harmless enough. From "The Industrial Improvement Corporation," it professed to come.

"Plans That Place Progressive People," its further headlines set forth in conspicuous type above a detailed offer to give an exact daily report upon the "individuality, personal and general characteristics, working efficiency, and loyalty of any working force on earth, weeding out the undesirable, taking up the lost

motion, and turning into the treasury more actual dollars per man employed than ever has been got out of your men before.

"No pay unless we succeed, and no dead timber left when we get through with your shops. We aim to please." This short symposium of the survival of the fittest and the uncaught naively concluded: "Our operatives are never caught. Absolute secrecy guaranteed!"

That letter bore, also, a few penciled words from one who was not much given to debate in the higher management of the road. The general manager, therefore, called in the general superintendent of motive power.

"I detest it!" said the general manager, quite frankly. "I despise the whole spy system as thoroughly as I did when I was a mechanic at the bench, and I hope that this will not be for long.

"But we've got to try it before we can say absolutely that it is both ultimately worthless and immediately disturbing, as I believe it to be.

"Put it on and send me the original reports as fast as you get them."

Therefore, there was a spotter, or spotters, in High Haven shops. Therefore, High Haven was much disturbed in that memorable month of its trial, and Jim Endy, sturdy pit-man, was the first to give concrete expression to the thought that was shaping itself slowly in the shop.

After that, the idea went murmuring down the pit-line amid the ringing rataplan of hand-hammers clinking out the merry ring of smitten steel. Day by day, it was discussed and punctuated by the boom of sledges and the sharp spang of riveting hammers upon giant shells of steel standing big, solemn and forsaken-looking in the boiler-shop.

The anvils rang it subtly in the blacksmith-shop, and men there read the menace of it in the lurid flames that flared and leaped above the forges.

The buzz-saws of the cab-shop hummed with it. The great forest of running belts on the machine side, just over the straight track from the pit side of the back-shop, whirled it into the surcharged air and wafted it to every guardian of lathe and planer and other busy, moving device that worked for the good name of High Haven and the good of the service.

Yes, that much was established beyond reasonable doubt. There was a rat in the meal-box; a beetle on the limb; a lizard at the bee-hive; anything you like as parallel, but somebody was secretly accusing. Somebody was listening to the accuser while the defendant was unheard. Somebody was delivering judgment against which there was no effective appeal.

Who?

Men searched each other's faces furiously to no avail. The scorer-beetle, cutting his fatal circle around the young hickory limb, is so like the color of the thing which it destroys that a passing look will not betray its presence. Yet, the limb quickly dies.

The lurking lizard is so like the sun-washed rock upon which it glides that, often, it is only the quick darting of its tongue that may arrest the eye. But, if by chance one should step upon the insidious thing—that would be very different!

So far, no one had chanced to step

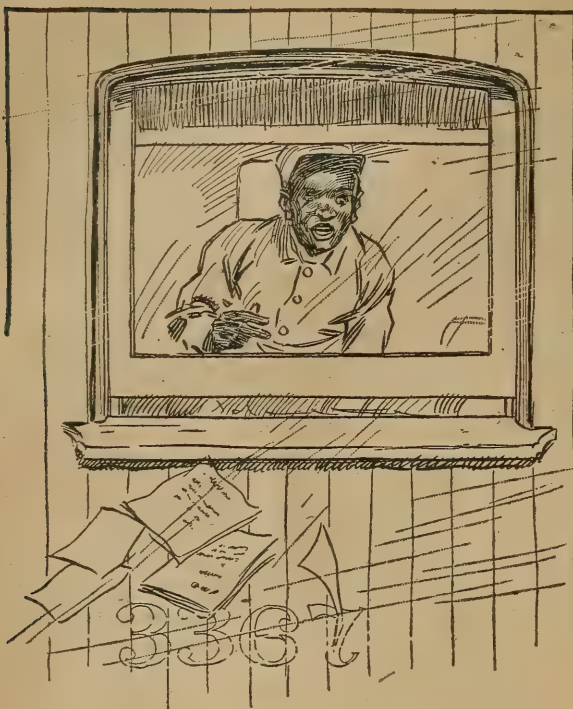
upon the lizard. The process of elimination had gone on at the shops until Tom Waring's was one of the few gray heads that remained. The "mavericks," as Jim Endy called them—the newer men who had not been long enough in the shop to properly acquire and assimilate the "brand" of High Haven—had become a considerable factor in the shop's total, and Jim, with some lingering instincts of his earlier days as a cattleman upon the up-lands, searched their faces unflaggingly for some sign or ear-mark which might point the way to their pedigree or possible ownership.

But, he found nothing worth while. Men in uniform, however modest, look quite a deal alike in general. Men's faces, like printer's type, sometimes read quite the reverse of what they are meant to finally convey.

Perhaps the situation would never have drawn down to an actual focus upon the secret offender if the postmaster's wife had not been hard put to it for a bit of morning gossip.



ONE BY ONE THE OLDER MEN WERE BEING WEEDED OUT OF THE SHOPS.



IT FLEW SWIFTLY PAST HIS CLUTCHING FINGERS.

"How is Mrs. Waring?" she asked a morning caller at the delivery window.

"Um-huh. Too bad she don't get better—Yes, I help at the window here sometimes, but not much—That is a bright boy of Tom Waring's! There is hardly a three days that goes by but that he sends a letter from Chicago—Um-huh. Yes, he's in the general manager's office, you know, and doing well, they say—Yes. Well, good morning!"

That was all. But, one of the pathetic old graybeards who had but recently been relegated to the picket-fence brigade was there with his aching heart, waiting for the letter that had not come in answer to his appeal to headquarters for a hearing, but which he had not yet the courage to believe would never come.

He heard that morning chat and, disappointed as usual, went away pondering it. Every three days, eh, and doing well. So Tom was doing well. He had his job, undisturbed.

Why should he have? His age didn't save him. What saved him?

So he mulled it over until his quick suspicion became a conviction. The idea

ran the length of the picket-fence brigade in the next few days. It crossed the tracks and made its rapid way into the shops.

Men began to look askance at old Tom Waring. Sometimes he suddenly found himself standing alone where, a moment before, a group of his fellows had stood earnestly talking while he approached. A fierce and resentful spirit was being fomented against him, but, as yet, there was nothing definite upon which to center it in the way of accusation.

If he noticed these things, Waring gave no sign. Perhaps he unconsciously withdrew a little closer into himself, but under normal conditions this would have been easily accounted for. He was at all times a reticent sort; and, furthermore, all who were a part of the old life of High Haven knew that, save

for his occasional unbending to report the progress of his absent son, his thought was chiefly with the patient, white-faced little wife at home.

They knew that each morning, time out of mind, he had propped the frail little body upon the pillows in its bed, and with his own roughened but gentle hands bathed the half-transparent hands and face of his wife, brushed out her soft hair and made her as comfortable as might be before leaving her to the care of a domestic and taking his way to his work on the pits.

For this and for other things as kindly, they had honored him as few men were honored in High Haven's quiet way. But, if it is found that a man is a traitor, in any walk of life, all other facts at once shrink to minor significance. A storm was evidently gathering around Tom Waring. A seemingly little thing precipitated it.

On one side of the pit upon which engine 1003 was receiving repairs, stood the vise-bench at which Waring worked. Beside him worked Jim Endy, fitting up shoes and wedges for that side of the

engine. On the opposite side of the pit Jake Halprecht manned the bench, fitting similar parts for the corresponding side of 1003.

Jake, peering malevolently through the frames under the engine in a furtive study of Tom Waring as he worked, allowed one of the heavy dead shoes which he was trying against a pedestal-jaw, to slip from his grasp. The sharp-cornered, heavy casting gritted across the pedestal-binder and darted into the pit with no word of warning to announce its coming.

It struck a glancing blow behind the ear of one of Jim Endy's "maverick" machinists who was stooping there, and slid to rest in the brick-paved bottom of the pit. The man dropped without a sound, and lay there with the blood welling from a three-inch gash which showed the white gleam of the bone before the red flood poured forth and drenched his hidden face.

They lifted him out and laid him on Tom Waring's bench, and it was Waring's skilful hands that stanchd the gaping wound, and Waring who best enacted the part of the good Samaritan until the man could be taken away for further attention.

In a week he was back — with bandaged head—at the pit. Senseless at the time of the accident, he did not know whose hands had given him first aid. Possibly he was so constituted that he did not especially care. In any event, within two days of his return the disturbing rumors that pointed toward Tom Waring were renewed with a venom that passed all that had previously been shown.

Somebody had heard that Waring's boy had written from Chicago that Jim Endy was likely to lose out soon. Nobody had told Tom Waring of this, but everybody else had heard it within those pregnant two days.

Jim Endy did lose out. He was discharged within twenty-four hours from the time the rumor became current. No reason given, and Jim was too proud to ask for any. He joined the picket-fence brigade, and waited.

That evening, after the shop-whistle had blown, there was an unusual hubbub and crowding in and about the shop wash-room. Men who, ordinarily, did not

think of stopping there to free hands and faces of the heavier grime before going home for the day, crowded into the room and overflowed noisily into the shop.

Above the growing clamor, in which Tom Waring's name was being bandied about very recklessly, there arose, at length, one voice that spoke clearly the dominant note:

"This thing's gone far enough! When he comes down-town, to-night, he gets the question, square, and he's got to give the answer!"

While this voice of menace was rising in the shops the summer sun was bestowing its evening benediction upon the little red telegraph-office at Bright Angel, a half-hour's ride eastward over the mountain.

There and then, big Jim Mahalie, with square-set jaw and smiling eyes, was heading the west-bound limited into the siding for water and to let the general manager's one-car special go by on its way eastward.

He saw it coming far away over the buttes, and, while the water was being rushed into the tender of his own engine, he made a quick, sure inspection below, and stood waiting to see the special roll rapidly past.

In the observation end of the special the simple evening meal was being eaten by the general manager and his secretary. The slight repast had reached that stage of its serving which would require no further attendance from the cook-factotum-porter, so that able and zealous servitor seized the opportunity to set in order the forward compartment of the car, which served as the secretary's office.

Dusting, adjusting, and guardedly rearranging the mass of papers upon the secretary's desk, he made the well-meaning mistake of raising a window-sash close beside the desk just when one of the swift little catspaws which frequently dab down from the upper air on the Great Divide added its swirl to the commotion set up by the flying train.

Instantly, one flattened sheaf of papers, from which he had lifted the paper-weight, rose with a rustling flutter. It flew swiftly past his clutching fingers and fetched up, tossing and tumbling, between the driving-wheels of Jim Mahalie's engine as the special swept past.

Jim picked up the papers, and stood looking expectantly at the receding train. He waited for the stop signal from the special's engine-whistle to indicate that the loss was reported, and that they would stop and pick up the papers.

No signal sounded. The train rapidly faded into a lessening speck in the distance, and Jim knew that the porter, after one frightened glance from the open window, had decided to defer the evil hour of reckoning—take a continuance, as it were, and hope for the best.

Thus suddenly become the custodian of this waif of correspondence, Jim glanced with natural interest at the topmost sheet. His face paled the merest shade. Then it reddened with a surge of anger.

He looked hastily up to the fireman perched on the waterspout, and noted with relief that he was watching anxiously the flow of water into the tender.

Climbing hastily back to his seat in the cab, Mahalie's eyes burned through the contents of the papers, swiftly, surely as he was wont to read a sheaf of tissue orders. When the waterspout clanked up against the roadside tank, he knew those writings as he would have known a handful of orders, at one sure reading. He was ready to "run on them."

Tom Waring came down-town that evening in High Haven. He came just when the dusk was growing deep and the yellow lights were beginning to show thickly along the main street near the tracks. He came with heavy step and bowed head, as one whose trouble is too deep for speech, yet cries aloud for the friendly company of men.

The streets nearest the tracks were more than usually alive. Men stood in little knots and larger groups, here and there, upon the nearer corners. But Waring did not notice it. He came steadily on across the little plaza which opens upon the tracks beside the station and joined the group strung out along the picket-fence and swelled to a cluster of silent men beneath the lone cottonwood which stands sentinel at the edge of the plaza.

Halting there, he lifted his eyes for a single glance about him. He saw Jake Halprecht, Jim Endy, and others whom he knew, or did not know, in that one

haggard glance. Then his eyes fell, and he spoke:

"Boys, my wife—"

"Cheer up!" broke in a voice he did not know. "Never mind your wife, for a little while. There's something else we want to talk about."

Waring straightened at this as if he had been struck. For the first time he took understanding note of his surroundings. He saw a general movement of men from the adjacent streets and corners toward the tree beneath which he stood.

What he did not see, however, was a coil of rope that swung at the hip of one of the approaching throng. Perhaps it was as well for those who stood immediately about him that he did not see that; for, whatever else Tom Waring might prove to be, he had the courage and the sinews of a man.

One comprehensive glance he took, and said:

"Well, talk it, then!"

The response came promptly. The thickening crowd shaped itself automatically into a circle around him.

"Who's the spotter in the shop?" demanded the voice that had admonished him insolently to cheer up.

The booming station-call of Jim Mahalie's engine came rolling down through the dusk as if in unintelligible answer.

"I don't know," replied Waring quietly, as the echoes of the limited's whistle died out upon the mountainside.

"No, you don't!" said the voice decisively. "What's your boy writing about from Chicago?"

"That is none of your business," replied Waring, still quietly.

"You're the spotter!" declared the voice, and the man with white-bandaged head pressed forward from his place beside Jake Halprecht and thrust out his jaw aggressively.

"You lie!" shouted Waring as he leaped toward the man.

At the word, the crowd split and upheaved into a dozen fighting centers, in which battled those who believed in Tom Waring and those who believed that he was false.

The bandaged head was shuffled beyond Waring's reach, and many hands were clutching, tearing, pounding at

Waring's body in return for the storm of blows which he was dealing fiercely upon them at every side.

Upon this shouting, battling throng Jim Mahalie looked out in astonishment as his engine glided to a stop at the edge

of his last mad onslaught, and he was tearing the rope down, hand over hand, from the limb, ripping it loose from Waring's neck, and casting it away over the heads of the men who remained upright around him.



"YOU, I MEAN; YOU MAVERICKS!"

W - T - HATCH

of the plaza. His quick wits guessed but once, and guessed right. He leaped from the engine-cab, and, with brawny arms toughened by years of battling with murderous reverse-levers, began beating his way through the riotous mob toward Waring.

He was strong. He was fiercely angry. But they were many, and he was but one. With his eyes fixed on Tom Waring, he saw the stealthy coil of rope hurtle through the air and fasten its running noose at Tom's throat.

He saw the loose end go writhing upward and over a limb of the cottonwood, and saw the line run taut. Again, he saw Tom's battling suddenly cease while his hands clutched futilely at the strangling loop around his neck.

Then he had no clear recollection of what he saw until he was done trampling over the bodies of men who fell before

Half senseless, he supported Waring, while he snarled forth the bitterest words of denunciation that ever rang across the plaza of High Haven:

"Stand away! You cursed camp-followers! You dogs! You coyotes! You, I mean; you 'mavericks'!"

"High Haven couldn't breed a play of its own as low as this!"

"Sit down, Tom!"

He let Waring down gently to a place at the foot of the tree, and made an effort to fan him with his oil-glazed cap.

"Jim," said Waring faintly. Then his voice took on greater power, and he added the one magic word that penetrated to the outer rim of the now silent crowd, and went farther toward healing the breach in High Haven affairs than any other that he might have uttered:

"Boys, my wife—my wife died a few minutes ago."

"Oh, my goodness!" moaned a deep voice from the midst of the awe-struck throng.

"You know," continued Waring's voice, "she's been long sick, but the end came that suddenlike that it fair struck me dumb. I guess I sort of wandered down here, looking for somebody to stand by me for a mite until I can get used to the idea."

"I want to go home now," he concluded, struggling to regain his feet.

"Wait, Tom," said Jim Mahalie. "Brace up for a while. We ought to know about this—and then I'm going with you."

He thrust his hand deep within his blouse and brought forth the vagrant sheaf of papers from Bright Angel siding.

"Hold your lamp here a minute, Perky, will you?" he called to the conductor of the limited.

The gay little green-and-white lantern bobbed its way through the fringe of the crowd, and by its light Mahalie read aloud a line from one of the papers which he was rapidly shifting with skilful fingers.

At the first word the man of the bandaged head began edging toward the rim of the crowd. He was stooping and pressing for a final exit, when Jake Halprecht's big hand fell heavily upon his shoulder.

"Wait!" commanded Jake. "Nobody goes now!"

It was all there. Word after word. Line after line. Page after page. Each of Jim Mahalie's brief and pointed extracts held something which, somebody recognized and instantly connected with something else—all having a common trend; all leading to one inevitable deduction.

Every pitiful little human weakness or defection that might not "make for success" in the shop's daily doings was particularly set forth there by day and date and hour.

Poor, well-meaning, average human kind was laid bare in that merciless epitome of the policy of the survival of the fittest. They were able documents of their kind.

It was short and cold and very calm, that reading of Mahalie's; and when he

quickly reached and read the topmost writing, the effect of that brief communication was electric:

Worked with Tom Waring, Jim Endy, and Jake Halprecht to-day on engine 1003. Halprecht dropped a dead-shoe on me. Knocked me clean out. Bad cut back of ear. Have to lay off rest of this week.

Don't know whether done on purpose, but they are getting hot and dangerous. Guess I can bluff them some more. Jim Endy ought to be fired quick, and next Tom Waring. Started spotter talk. Fire Halprecht. He's a dub and too old.

94.

"That is all," said Jim Mahalie. "Can any of you enthusiastic gentlemen nail this patriot who signs '94'?"

The man with the bandaged head suddenly broke loose from the slackened grasp of Halprecht and darted through the edge of the crowd. He sprang across the platform of one of the cars in the limited, with Jake Halprecht and Jim Endy close behind.

Across the yard, through the round-house, and into the black depths of the boiler-shop the chase led, and it ended beside a rivet-heating forge upon which the fire still smoldered.

They did not strike him. Nobody deigned to kick him. They stared at him in a species of loathing wonder until Jim Endy gritted through his clenched teeth:

"You 'maverick'!"

That word settled the fate of the fugitive. He did not bear the brand of High Haven. He must bear a brand of his own. It was quickly done.

Jim Endy's hand had lost none of its old-time skill with the "running-iron." The fire on the forge flared up for a little time and then died down again.

When "94" went over the mountain that night, he was neither bruised nor beaten—but his number was aching and burning upon his back.

There is now no line of discredited veterans, smiling with breaking hearts, along the fence-line at High Haven. Time and experience have evolved a more acceptable form of retirement. Just how much of this is due to the manner of the return of the general manager's papers, it might be difficult to say.



HE MUST BEAR A BRAND OF HIS OWN.

However, he received them promptly through the proper channel, with full information. He, personally, took them to the general superintendent of motive-power, and, after he had closed the door against all intrusion, banged them upon the desk with the terse command:

"Destroy them! Yourself! You know how it finished at High Haven? Think of it! And with the limited standing by!"

He paused—and continued:

"Destroy them! Put every one of those men back as soon as you can without making a parade of it!"

He turned about, and had reached the door, when he said with an odd smile:

"It is too good to keep—or too confounded bad. I'll have to tell you!"

"Why this diabolical outfit turned in a report against *you*!"

"Yes. I know that," was the reply.

"But they put in a report on *me*!" insisted the general manager. "And just yesterday we discovered that they were working up a case against the board of directors, and had designs upon the chairman of the board—who employed them! A week more of it, and they would have owned the road!"

"Don't forget to destroy them!" he said, with a backward nod toward the papers as he passed out.

They were destroyed.

AN ENGINEER RHYMESTER.

IN spite of the bad weather that prevailed over most of the country during the last four months, passenger-trains have been run with wonderful punctuality on most of the lines. One night a freight-train on the Milwaukee road was stalled and delayed an important passenger-train. An irate super wired the engineer the well-known ominous phrase, "What was the

cause of your delaying No. 8?" The engineer is a friend of Shandy Maguire and a rival of the engineer-poet. He answered:

"The wind was high, the steam was low;
The train was heavy and hard to tow;
The coal was slack and full of slate—
That's why we held up Number 8."

Railway and Locomotive Engineering.



Drawn from the Architects' Designs.

THE NEW TERMINAL BUILDING FOR THE NEW YORK CENTRAL LINES IN NEW YORK CITY.
THIS MAGNIFICENT STRUCTURE IS BEING ERECTED ON THE SITE OF THE OLD TERMINAL WITHOUT THE SLIGHTEST INTERRUPTION TO THE TRAIN SCHEDULES.

The New Home of the New York Central.

BY STEPHEN ANGUS COX.

THE New York Central Railroad is rapidly pushing to completion its new terminal on Forty-Second Street, New York City. Its officials are meeting the cry for larger and better transportation facilities in the metropolis with a terminal that will be the acme of constructive skill. Millions of dollars are being spent for the safety, comfort, and convenience of its patrons; and, with an ingenuity that borders on wonderment, a new depot is being constructed with the razing of the old one still going on, while the terminal trackage is being doubled without a single interference to the regular passenger-train schedules. It is a marvel of engineering skill.

In the Heart of New York City a Gigantic Terminal Is Being Constructed While the Old One Is Being Demolished, and the Schedules of a Great System Remain Unchanged.

IN the heart of New York, the great modern, matter-of-fact city, a miracle is being wrought. One of the greatest engineering feats of railroad history is being accomplished. The

Grand Central Station, one of the busiest of the world's termini, is being razed, its tracks torn up, its yards quarried, its switches and signals changed and rechanged every day.

A mighty new terminal being constructed simultaneously with the destruction of the old one, and not a train of the 700 that run in and out of it daily is being delayed.

It is a work such as giants might be expected to achieve, an immense wonder-inspiring section of the great future brought into use half a century ahead of time.

The New York Central Railroad Company for thirty-nine years has been the only railroad company with a passenger station on Manhattan Island. All other lines, from South, West, and North came

to an end—made a disappointing finish, so to speak—in Jersey City or Hoboken, and the tired passengers must needs tumble out of the cars, go swarming down the narrow, sloping chutes and aboard the ferry-boats, there to dwell a seemingly interminable period, while the boat was backing and filling, ducking and dodging the innumerable river-craft, and paying a course for a slip somewhere along the river-front on the New York side.

Originally built in 1871, the station was enlarged in 1898 and 1900; but the constantly increasing traffic made imperative a much larger station, and the New York Central Railroad Company, realizing that in another decade New York will be a city of six or eight millions, with three or four times the present traffic, decided to build for the future.

A Daring Undertaking.

The enlarging of a terminal in the heart of New York City is a task only

to be undertaken by the most daring. Where acres of property, perhaps the most valuable in the world, have to be swept away, the cost of yard tracks comes mighty high.

The Pennsylvania Railroad Company gave an illustration of what can be done in this direction with unlimited resources. The New York Central is giving an illustration of what can be done with unlimited resources and engineering genius. They bought nearly twenty-two acres of real estate, and ruthlessly swept down millions of dollars' worth of residences and stores. But in yard trackage twenty-two acres is not an enormous area, and more is needed if the company would not again be face to face with the same problem in a very short time.

There must be an end of the buying up of the city, and especially when the purchase prices run to fabulous sums per front foot. They already had twenty-three acres in the old terminal, and this added to the twenty-two made what would strike one as a good-sized yard.

It did not strike the responsible officials of the New York Central that way, so they set about to see how they could double it without investing in more real estate.

Simplest thing in the world, of course, to excavate and make two levels. Very simple, indeed, on paper. However, it is for the directors to command and the engineers to obey.

If the directors say that all trains must be drawn into New York City by electric-power, it must be done. If the directors say that trains must run into a terminal of two, or even more, levels, that also must be done. In engineering there are apparently no impossibilities.

The First Work.

The first work was a work of destruction. Commuters coming in every morning saw the outline of the yards changing day by day with the rapidity of magic. Buildings that had been landmarks to them for years as they emerged from the Park Avenue tunnel were destroyed overnight.

Over on the East Side the temporary terminal sprang into existence, the lower floor of the Grand Central Palace was

commandeered for the purpose, and a splendidly fitted station appeared before the New Yorker had hardly become aware of the fact that changes were being made.

From behind this terminal two levels of track pushed their way out toward the tunnel. They were the beginning of a new order of things.

Gradually they widened, stretching out westward toward the old station, until there were twenty-three tracks on the upper level and nine tracks on the lower level. Then began the work of destruction of the old tracks and yards.

A thousand men, like an angry army of invading insects, began tearing with their seemingly puny strength at what had been the monumental labor of an earlier generation. There was something tragically ruthless in this terrible sacrifice to the god of expansion.

Drilling Into the Earth.

They pounded their whirling steel stings into the earth and tore out her rock-bound heart, but all along the rhythmic pulsing of the drills beat the air like the music of the song of industry. In the weird glow of electric flare-lights they drilled and drilled, and the night, instead of softening the sounds of destruction, made them appear all the more relentlessly eager.

To the watching New Yorkers it seems as if the New York Central had decided to make wreck and chaos of all it could lay its hands on.

It was not until practically a few months ago that to the experienced eye some semblance of order, some idea of design, could be gained from the apparent chaos.

As the tracks from the new portion of the yards reached to the old one, the old terminal began to be destroyed and the old tracks to be torn up.

The tearing down of the station, with its enormous and heavy train-shed and the accommodating of the tremendous crowds is one of the engineering feats of the day. To move the train-shed over the heads of the passengers a most ingenious scheme was evolved.

An enormous movable traveler was built in accordance with the contour of

the train-shed, and mounted on wheels, which ran on rails laid in the middle of the platforms. The train-sheds were removed in sections of twenty and forty feet, the roof covering, which consisted of corrugated iron and glass, being removed to the floor of the traveler.

The trusses, having a span of 200 feet and a height of ninety feet, were cut out in eight sections and lowered onto the traveler-floor by derricks, this work being done in the daytime.

At night two tracks were assigned to the construction department, and the refuse material was placed on cars and sent out on the road. Temporary wooden sheds were built behind the traveler, so as to leave very little uncovered space.

When the traveler reached the fence at the north side of the present concourse, the work became more difficult for the reason that no supports could be placed on the concourse, it being filled with people most of the time; but the difficulty was surmounted, and the roofing and trusses successfully removed.

The base of the trusses extended several feet below the level of the platforms, however, and to prevent the necessity of tearing up a goodly portion of the concourse, an acetylene-oxygen blow-pipe was used, and by means of the flame thus produced the trusses were burned off at the level of the platform.

The Track Arrangement.

Of the forty-two tracks on the upper, or express-train level, twenty-nine will be adjacent to platforms; and of the twenty-five local, or lower-level tracks, seventeen will be adjacent to platforms. Five of the upper-level tracks at the extreme west side will be connected, by means of loops, with yard tracks on the east side, while the majority of the tracks on the suburban level will have loops at the southern end, connecting them with the storage-tracks at the east side of the yard.

Inbound through trains from the neck of this immense bottle will, in the majority of cases, be diverted onto one of the five tracks already mentioned as being connected by loops with the tracks at the east side. After the passengers have alighted the trains will be taken

around the loop, and after the baggage-cars have been placed on a track adjacent to a baggage platform, equipped with elevators and conveyors, the rest of the train will be placed on tracks in the storage-yard.

Trains Down an Incline.

Inbound suburban trains will be sent to the suburban level down an incline-track, either at the extreme west side of Park Avenue or on one about the center of the avenue, thence onto a track adjacent to a platform, and in most cases on the west side of the yard.

Here the passengers alight; and if the train is to depart immediately, it is reloaded, sent around the loop, and rises on an incline-track to the main level on the east side of Park Avenue, and thence onto the road.

Trains that are not to go out for a while are placed in the suburban storage-yard. Thus the business of the two yards will be kept separate, and all confusion incident to transferring equipment from one level to the other will be avoided.

As may be supposed, in a yard the size of the Grand Central Terminal, with its sixty-seven tracks, aggregating thirty-two miles, a perfect system of signaling and train control is necessary. Without such a system it would be impossible to get 700 trains through the narrow neck of our hypothetical bottle every twenty-four hours without collisions and wrecks.

One man controls the entire train movement of the Grand Central Terminal. He is stationed at Mott Haven, and is called the chief interlocking director. Between his office and the Grand Central Station are five towers, in which are lever switchboards, it being possible to open or close any switch by pushing a lever, and thus diverting a train onto any track desired.

In each of these towers there is a bay window, and in the window sits the tower-director, who, when he sees a train coming, gives an order to one of the operators, who pushes the proper lever, and the train moves onto the proper track.

The trains on the different divisions are designated by a different letter on all the train-sheets. Trains of the Har-

lem Division are denominated X, those on the New York, New Haven and Hartford Division by Y, and those on the Hudson River Division by Z.

If a train arrives at Mott Haven, and the chief interlocking director wires to the towers that Z-21 has arrived, the directors in the towers know that train No. 21, of the Hudson River Division, is referred to. When the train comes in sight the director gives the order to one of the men, who pushes the proper lever.

This system has been described fully in a previous number of *THE RAILROAD MAN'S MAGAZINE*, so it is not necessary to more than refer to it here.

The tearing up of the old tracks, the excavating and erection of the tremendous girders which are to form the groundwork and support for the upper level, was more than a problem of tremendous construction—it was also a problem of ingenuity. Every move had to be laid out on paper, and new combinations of signals and switches worked out before a rail could be torn up, or there might have been unending delays.

Never before was work so scientifically ordered and so minutely planned in the order of its execution. Excavating alone was a task so stupendous as to daunt all but the dauntless. Over 1,500,000 cubic yards of earth and rock have been excavated already, and the work is little more than half completed. The rock-drilling varies from five to fifty feet, and already enough rock has been removed to build a pyramid as large as the famous ones of Egypt.

Like a Bottle's Neck.

To get an adequate idea of the difficulties of constructing a tremendously wide terminal station with two levels and with every track in almost constant use, it must be borne in mind that the entire traffic must be poured through the Park Avenue tunnel as through the neck of a bottle.

The ingenuity demanded in laying out these tracks, and in apportioning the trains that run over them, is positively uncanny. Like everything connected with this tremendous undertaking, one has to think of it in superlatives. The trains of practically three railroads

empty into and from this enormous bottle. There are the Hudson River and Harlem divisions of the New York Central, and the New York, New Haven and Hartford road.

The Grand Central Station, the crowning glory of this great terminal, will stand on the site of the old building, the demolition of which will begin the first of May. The new station will be 600 feet long, 300 feet wide, and 105 feet high. At the street level it will be 745 feet long, 480 feet wide, and 45 feet deep. The building will be bounded by Depew Place on the east, Forty-Second Street on the south, Vanderbilt Avenue on the west, and Forty-Fifth Street on the north; but the building will be set back from Forty-Second Street and Vanderbilt Avenue about 60 feet, providing a wide plaza on the south and west.

The Station.

The original plans of the station itself have been changed considerably from the first design, and the building, when finished, will present a unique spectacle of a self-supporting terminal.

As may be seen from the architects' drawings, which we reproduce, a skyscraper building will reach up from the main structure, and the rental from the offices contained in it are expected to practically defray the working cost of the terminal.

The main entrance to the station will be at Forty-Third Street, on the Vanderbilt Avenue side. On descending a short flight of stairs to a level about ten feet below the street, one will find himself on the main concourse, which will be 120 feet wide, 500 feet long, and 100 feet high. The suburban concourse will be the same width, but only 400 feet long.

South of this concourse, and between it and the Forty-Second Street front, will be a large waiting-room, ticket-offices, etc. It will not be necessary for passengers to go through this room in going to and from trains. Around three sides of the concourse, at about the street level, will be a balcony, to which carriage passengers and those entering from the street will have access.

The main concourse will connect only with outbound trains. An arriving con-

course for through trains will be built at the east side of the building, thus avoiding the confusion usually existing where incoming and outgoing passengers commingle on one concourse.

Below the concourse and waiting-room, on a floor immediately between them and the suburban track level, will be a large mezzanine concourse connecting with the Subway, and enabling arriving and departing suburban passengers to go to and from the Subway and suburban track level without having to ascend to the street.

For several years past all the trains entering and departing from the Grand Central Terminal have been hauled by electric locomotives. Consequently the smoke and gas-fumes, so disagreeable to passengers while the train was traversing the tunnel, have disappeared.

In addition, what are known as multiple unit trains are in operation. These cars have a motor, and can be operated as units or any number together.

The use of electricity as a motive power made a great change at the terminal. With steam-locomotives, a high train-shed was necessary to provide ventilation, but

with electricity all that is necessary is to provide room with the trains. It was this that made possible the creating of a second level, which could be utilized for the suburban train service.

As the terminal is to be used by the New York, New Haven and Hartford Railroad Company, as well as by the New York Central, the presidents of these two companies are in full control, and they give final decisions on all plans evolved by engineers, architects, etc.; and under them, and having direct charge of the work, is a vice-president of each road, who in turn is assisted by a joint committee of three representatives of each road, these committees making recommendations on all plans submitted by the engineers and architects.

The total amount of steel used in the construction will be 86,000 tons. This would require in the neighborhood of 3,000 cars to haul, and would make a train about twenty-five or thirty miles long.

The capacity of the old terminal was 366 cars; the capacity of the new terminal will be 1,149 cars.

RISKS LIFE TO SAVE CHILD.

Fireman on Pilot Snatches Little One from Death Beneath Rapidly Moving Engine.

WHILE the engine was going about thirty-five miles an hour and approaching the town of Donahue, Iowa, Fireman Fred Sies, of the Monticello accommodation-train on the Milwaukee, standing on the pilot of the engine, No. 573, grabbed a three-year-old child, playing in the sand in the middle of the track, by the neck and saved its life.

The experience is one which, he states, he does not care to have repeated.

"If any man deserves a Carnegie medal, this fireman certainly does," said Engineer Frank Cowden, of the train after the train had arrived in Davenport.

"We were coming down the track at the rate of about forty miles an hour, and were within a mile and a half of Donahue," he said, "when I saw something ahead of us in the middle of the track.

"I thought it was a dog, but suddenly saw it was a child, as it raised up. The child

was playing in the sand, and was stooping over so that it looked like a dog. I immediately shut off the steam and put on the air, and then saw Sies running out on the running-board to the front of the engine.

"When we came to a full stop I hated to go out and look at the spot where we had undoubtedly killed the boy, as I thought sure that he would have been run over, and Sies as well. I never was so surprised as when I saw my fireman step up to the cab holding the child by the neck."

Both fireman and engineer state that the mother of the child, living close by, ran out of the house when she saw the train approaching, but turned in horror and fled back as she evidently did not want to see the child killed.

After the train was stopped and she got her child, her excitement and joy were so great that she could not utter a word.—*The Railway Record*.



THE LURE OF THE RAILS.

BY LESLIE CURTIS.

Written for "The Railroad Man's Magazine."

SHINING rails, shining rails, beckon not to me.
My place is by the fireside, my children at my knee;
My place is by the fireside, with every loving bond.
Why does my restless, pulsing heart go seeking the
beyond?

Why will my thoughts go roaming over mountain, plain,
and lea?

Haunting rails, taunting rails, beckon not to me!

Shining rails, shining rails, let my spirit rest.
Even in my dreams I see lines that meet the West;
Even in my dreams I see prairie land and hill.
Hold me closer, love of mine. Restless heart, be still.
Ties of home take hold on me, drown the engine's roar—
Cruel, sneering, leering rails, torture me no more!

Shining rails, shining rails, glistening in the light,
You who greet the frozen North—meet the land of white;
You who greet the frozen North—ah, my thoughts run wild!
Who is crying, love of mine? Can it be the child?
Wilful thoughts stray back again from the frozen zone.
Maddening rails, saddening rails, go your way alone.

Shining rails, shining rails, turning toward the South,
Stronger is the loved one's kiss upon my willing mouth;
Stronger is the loved one's kiss—yet I seem to see
Sunny climes and graceful palms—they are calling me.
I must answer, love of mine! I'll return—but when?
Cruel, bitter, loving rails—I am yours again.

THE MAN WHO WASN'T GAME.

BY WILLIAM S. WRIGHT.

It Isn't Always Well to Take a Chance Acquaintance Too Seriously—He May Be an Enemy.

CHAPTER I.

Master of His Fate.

BROKE!

I, John Anderson, thirty years old, born of respectable parents, living until my twenty-first year in a thriving Western town, having had every advantage that education and kindly parental indulgence could bring, know the full meaning of that word—better, perhaps, than any other man on earth.

I do not bar the unfortunate who stands in the bread-line from night to night. I do not bar the needy mendicant who does not taste food for days at a time, and who begs from door to door. I do not bar the man who has spent his all and looks vainly for work. I have been broke—broke in every sense of the word.

I have been without money for years. I have known what it is to pick crusts of bread from the refuse of a kitchen. I have slept in public parks on summer nights, and stood in doorways on winter nights.

I have even begged to be taken into city prisons just to get some food and shelter from the cold. It is not so bad when one can find neither work nor food to spend a few days or weeks, or months even, in prison. At least there is some humanity inside the gray walls. A man can't starve, and he has a blanket to roll in every night.

But it is hard when a man is ambitious. I am ambitious. I want work. I want to live like other men. Only a little will satisfy me.

I have tried hard—mighty hard. I am not a believer in that thing called fate,

but there must be something—something that keeps men down besides their own acts.

Why should I preach, or why should I even think? Have such men as I the right to do either?

Perhaps you can answer that question when you have heard my story.

At twenty-one I ran away from my good home. I resented a scolding that my father had given me—that was all.

We lived in Hampton, Wyoming—a conventional place of some ten thousand inhabitants. I was accustomed to purchase the household necessities at the town stores for my mother.

On this particular day she sent me out with twenty dollars. It was a big sum to me. When I left her at ten o'clock in the morning I had no more intention of not returning home than she had of killing me. I kissed her good-by.

She told me not to harbor any ill-feeling against my father. But, somehow or other, I felt he had harmed me deeply. It wasn't what he said that hurt—it was the manner in which he said it.

Something possessed me as I walked down the street. A new light seemed to come into my life. I began to slowly realize that, as I had just come of age, I was of some importance in the world, and that it was up to me to put that importance to the test.

It was impossible to do so in Hampton. That "village," as I sneeringly dubbed it, was no place for me. What wouldn't I give to be back there now!

I was just turning into the main street of our town, when my will was strong upon me.

I would not pay the bills! I would not turn back! I would go!

I walked straight to the railroad station and secured a ticket for Omaha. Although the agent knew me, he didn't show any surprise when I purchased a ticket out of town. I suppose that I did it in such a mechanical way that it did not occur to him that I was purchasing the ticket for myself.

The train rumbled into the depot and came to a halt. It was then shortly after noon. In the scurry and hurry of alighting passengers and the good-bys of the departing ones, in the exchange of incoming and outgoing freight, busily handled by the depot men, I got aboard.

I found a seat in the rear of the smoker—a small, badly ventilated car; the fumes of bad tobacco were so dense that I began to be stifled. Some twenty men were lounging about the seats—some were asleep, some still smoking; but they all had the dismal air of tiresome travel.

Somehow or other, I did not think of home; that motley crowd of hard-looking men had arrested my thoughts. I began to wonder who they were, and whither they were going, if it really were possible for human beings to get so low in the scale of life, when my senses were punctured by a shrill voice: "All aboard!"

It was drawn out in the monotone familiar to conductors. The train gave a sudden jolt. The locomotive puffed—once, twice, thrice—and then it secured its momentum.

In another minute we were moving ahead easily, and faster—faster—faster. The familiar spots in the outskirts of the town went by—first in the easy stage of observation, then so fast that I was reminded only of the saying of some noted humorist: that the telegraph-poles looked like a fine-tooth comb.

It may seem incongruous that anything humorous should have entered my mind then. But, as this narrative will show, the humorous in life always struck me forcibly.

It mattered little about the seriousness of my condition; even with hunger gnawing at my vitals, I never failed to see the humorous side of a situation, and I presume that this optimistic streak, so to speak, is accountable for the fact that I am alive to-day to write this story.

We were soon in a part of the country that was strange to me. My thoughts

then turned to my mother. I knew that she was now worrying because I had not returned home, and I pictured to myself her feelings when darkness came and I would not be home to join in our evening meal.

I did not worry about my father. I knew that, with his cold-blooded demeanor, he would simply look upon my departure as just what might happen to any young man. He had no sentiment. Life with him was all practical and matter of fact. We are simply creatures to shape our own destinies, he thought, and I was only shaping mine.

As we sped along, and twilight came, I tried to time the exact moment when my father would be returning home. I could see my mother, with tears in her eyes, telling him that something terrible must have happened to me, and I can see him denying that such was the case—that I was old enough to take care of myself, and that I would be sure to turn up all right in the end.

He had that all-pervading belief in human nature that any man thrown on his own resources, provided he has grit and determination, will ultimately land on his feet. And I knew that he lost no sleep that first night that I was absent from home, although my mother probably cried her eyes out, wondering if I were dead or alive.

When I reached Omaha, and stood alone and desolate on the sidewalk in front of the great railway station, I determined for a moment to return home.

But it dawned on me with much force that I was a thief as well as a runaway.

And yet, wouldn't my mother have given all that I had taken, and all that she possessed, if I would have returned that night.

It was too late now. The damage had been done. I was my own master—the designer of my own fate. Nobody could say a word to me as to what I should or should not do. I had only my own commands to obey. There is something in that.

Night came on, and it was pretty cold. I was hungry, and I wandered to a cheap restaurant near the station, where, for twenty cents, I secured a greasy beef-steak, smothered in a wad of greasy onions, and a cup of coffee that must have been brewed from the bark of a tree.

Compared with the plain, but well-cooked and tasty, meals that my mother so gladly prepared for our little home, this repast was like unto the swill that is thrown to hogs. But hunger is its own best cook, I have frequently learned since.

After I had finished my meal I walked down to the station and watched the trains as they were shunted back and forth in the yards. Railroads had ever a fascination for me, and I was getting deeply interested in several new passenger-locomotives attached to the fast trains for the East and West, when the darkness came upon me.

The myriad lights of the railway yards seemed to dazzle my eyes, and, before I knew it, I was blinking and tired. The next thing to do was to find a place to sleep.

My first impression was to crawl in some box car and pass the night. I saw three standing on a siding near a freight-station, and started across the tracks to them. A man yelled to me to go back.

Evidently he was on the lookout for tramps.

I sat in the station near the stove until another man—this one in uniform—came up to me and asked me what train I was waiting for.

I didn't know, of course, so he hustled me into the street again, with the forcible reminder that the station was no place for bums, neither was it a hotel.

It was too cold to wander the streets, which I would gladly have done in order to save my money. But when I remembered that on the morrow I would have to start out in search of work, it seemed to me that the best thing for me to do was to get a good sleep.

I walked along a dimly lighted thoroughfare and into another—I have traveled so much since that I do not remember the names—and finally my eyes caught a sign, faintly showing under a flickering gas-light that seemed destined to be extinguished with every puff of the wind, the sign:

ROOMS

10, 15, and 25 cents

MEN ONLY

I entered the place, and walked a dinging flight of wooden stairs to a landing,

where the word "Office" on a glass door told me that I should apply there. There was only one light on the landing, and the odor—nay, let me now give it its proper name, *smell*—was enough to choke an ordinary mortal.

I entered the office. It was a dingy affair—a room of perhaps eight square feet, six of which were partitioned off by a brass net work. Directly in front of the door there was a window in the brass work, and through this a man thrust his head and asked me what I wanted.

"I should like to have a room for the night," I answered.

"How much?" he asked.

I remembered the sign outside, and my meager purse, and told him that the ten-cent variety would suit my taste just then.

"What is your name?" he asked as he pushed a book in front of me and handed me a pen.

I took the pen, and started to write at the place he indicated, but it suddenly struck me that I could not give my own name in such a place. I wrote down the "John"—that was common enough—but what should I indite as a surname?

Long training, or instinct, or Heaven knows what, forced me to make the "A," and before I knew it I had written the name "Andrews."

I have since read somewhere that criminals assuming names generally use their own initials; that there is some unseen power that guides the hand to do this, no matter how much the mind may force it to do otherwise.

"How old are you?" he asked when he had written my name.

"Twenty-one," I truthfully answered.

"Where were you born?" was the next query.

I hesitated. What difference could it make to him what I said?

"Chicago," I finally told him, with a tremor.

"What is your occupation?" was hurled at me.

"Clerk," I said, half under my breath.

He wrote down each answer as if each were gospel truth. He asked me one or two more questions—the names and ages of my parents, which brought forth blackened lies. I finally mustered up courage to ask him why it was necessary to pursue

this mode of cross-examination for the simple purpose of renting a ten-cent room.

He did not hesitate to answer. He gave it to me quick and straight from the shoulder. He said:

"So we will know who you are, in case you commit suicide. The law requires it."

He was a cheerless-looking, lantern-jawed consumptive of some forty-five years, into whose life disappointment must have crept and died. He didn't know just how deeply those words cut—and he didn't care.

He struck a great brass gong, and looked upon me with the calm indifference of one who knows a tramp when he sees one as he took the dime I handed him and thrust it in a cluttered-up cash-drawer.

His ring was answered by a shuffle of feet outside. A man rattled down-stairs and entered. It was evident that in this hotel the attendants cared but little for the comfort of the sleepers.

"Show him up to twenty-seven," said the man behind the brass work to the man who entered.

This second individual nodded to me, and opened the door. I followed as he started up another flight of stairs more dimly lighted than the first.

He opened the door of a room—a large, poorly ventilated room, in which a hundred men were sleeping. Then it came to me that my ten cents did not entitle me to a single room. My guide led me on among the lines of cots placed close to each other in perfect order.

It was dark—only a red lamp gleamed over the solitary door to show the way out, in case of fire. We walked almost to the end of the room, when he stopped in front of a vacant cot, pointed, and made his exit.

There were no tips in that hostelry.

The vacant cot to which he pointed was "twenty-seven." I looked at it a moment and then sat down on it. My hands touched the musty blanket and the hard pillow, and a shudder ran through my body. Then I tried to look around me.

On every cot, so far as I could see, was a man. Some were asleep, some must have been awake, many were snoring like sawmills, and many more were restless; but all were human derelicts, with no story to tell about themselves.

All, perhaps, had given fictitious names—just as I had—and if all committed suicide, or if the place burned down and all were incinerated, who would mourn them?

But the odor of the place—the foul, impure stench! It made my head ache. For a moment I thought of the cleanliness of my own home, and the pride that my good mother took in keeping it wholesome. A tear burned on my cheek. I threw myself on the cot without removing even my coat or shoes.

I wanted to go to sleep and forget everything.

I buried my face in that awful pillow. It was a hard, canvas affair, without any pillow-slip, and scores of heads had rested there before mine.

But it did seem good to lie down, even if the odors of the place were getting more and more unbearable, and the snoring and the restless occupants were on my nerves.

As I listened to them, a terrible wave of real homesickness completely engulfed me. I grew restless, I cried, I even moaned.

I would have given anything—anything to have been home! I knew the torture that my mother was suffering for me. Her voice was calling. The darkness frightened me. Those men around me seemed to mock the good that I had in me. I wanted to go home—I wanted to go home!

The next thing that I knew, some one was prodding me violently in the middle of the back.

CHAPTER II.

The Man in the Next Cot.

I HAD been sound asleep. Whoever was trying to awaken me evidently had been working pretty hard in that direction, for before I regained my waking senses he had poked me violently with his fist, and always in the same place in the middle of my back.

Thinking that something had happened, I sat up. The man who had been so intent on waking me was the occupant of the cot beside mine. He was a short, sandy man. He wore a cheap, black suit, which was much the worse for dirt, and a blue shirt.

His hair was long and disheveled, and his stubbly beard, offset by a mustache that was reddish and somewhat heavy, gave him an appearance that was not inviting to a young man who had just thrust himself alone on the mercy of the wicked world.

He was the first to speak.

"Time to get up, pal; they'll throw you out of this dump in a few minutes."

I thanked him, and looking around me I noticed that the cots were being slowly emptied one by one.

"Come with me and I will show you where to wash," he volunteered.

I followed him. I suppose that I would have followed a dog. I felt that it was easy then to follow anything save my own inclination.

He led the way across the hall to a smaller room opposite the one in which we had slept. Around a battered sink, a score or more of men of all ages were rubbing yellow soap on their hands and into their eyes and ears. Then they would plunge their hands under the faucets from which flowed goodly streams, and rinse the suds away. They seemed to be enjoying it.

The water looked refreshing, but there was a dismal taste in my mouth and a stickiness about my face and hair that seemed to defy any cleansing property on earth.

I removed my coat, collar, and tie. I waited patiently until there was an opening—and then I washed; indeed, I seemed to be cleansing my very soul. My, but that water was good!

Now for a rub on the towel. But, alas, there were only three towels and they had been used so many times by so many men that they were not only slopping with water but black with dirt. I hadn't the courage to tackle one of them, so I deftly extracted my handkerchief from my pocket and began to use it to dry my face and hands.

Some one was laughing at me.

I turned. It was the unkempt being who had so rudely awakened me.

"Not used to this sort of thing, sonny?" he said.

My mother had taught me to look only on the pleasant side of things, and especially in dealing with my fellow man. I remembered this, and while I resented his

unseemly impertinence, I smiled at him as if it made no difference to me whether I used a handkerchief or towel.

I finished drying and started for the door. He followed me. I made for the street, and he was close at my heels. I reached the sidewalk and looked around me. It was a cold, bleak morning, and to make matters worse, a dismal rain was falling.

I looked in the direction of the railroad station only a few blocks away, and my eye caught a huge clock—it pointed to the hour of seven. That was the hour when all the sleepers in the place where I had passed the night were turned into the streets.

I thought that I would go over to the station for a while. It would be interesting now to watch the trains and the men going to work—and, maybe, I would be fortunate enough to find employment.

Just as I was starting away my "friend" who had lurked in the doorway of the hostelry came out and approached me.

"Can't we go and get a little breakfast?" he asked.

It wasn't a bad suggestion. I replied that I thought that I would go somewhere for a cup of coffee.

"I'll go along," he responded. "I know a place up here a block or two," and he jerked his head in a direction opposite from the railway station.

We walked along together. He asked me my name. I told him that it was "John." I did not attempt to give him my last name.

"Mine's Billy Brown," he volunteered. "Say, let's be pals. Where are you heading for?"

"I'm going to look for something to do when I've had some coffee," I said.

He smiled as if I didn't mean it. We exchanged a few more commonplaces when we reached a dingy restaurant. It was dignified by a huge sign over the door, announcing that coffee and cakes could be purchased for ten cents and by a dozen or more sad-visaged pies in the show-window.

Billy entered first. I followed. He led the way to a table in the rear of the place, and brushed the multitudinous flies from the oil-cloth with a sweep of his arm. He took a chair opposite me

and there we sat awaiting the coming of the attendant.

A fat girl with her hair still in papers, hastened in from the kitchen with her mouth full of her own breakfast, and tried to ask us what we would have.

"Coffee 'n' sinkers," said Billy.

A nod from me indicated to her that I would take the same.

She vanished, and before she had time to return with two thick and steaming cups of a concoction that might have passed for coffee with a horse, and a plate containing six leaden links that were never intended for anything but sinkers, Billy had leaned over and was becoming confidential.

"If it's work you're looking for, pal, I want you to stick to me, an' I can put you wise to a little job in this town that will make us both rich."

"Something you're interested in?" I said, with all the enthusiasm I possessed.

"Yes. It's a hotel down here."

"A hotel," I echoed. "What sort of a place—are you going to open it?"

"To be sure I am," he answered.

"I won't say anything more about it now, but you meet me to-night, at eight o'clock in front of that joint where we slept last night, an' I will tell you all about it. I can't do it now!"

He said some other things which I do not remember while he soused the sinkers in his coffee and dripped the liquid onto his vest while trying to guide the combination to his mouth. Indeed, I thought that he was a little excited, but put it down to his prospects.

"You're the kind of young man I like," he continued. "I saw you come in last night. I watched you as you sat on your cot. I heard you cryin'. I couldn't go to sleep."

"I don't blame you," I said. "It is a dirty hole. I never slept in such a place before."

"I thought so," said Billy. "But it ain't so bad when you get used to it."

Would I ever get used to it?

Billy choked the last bit of leaden sinker down with the last gulp of near-coffee, and the fat girl appeared again.

"Which one of you gents agoin' to pay fer this?" she asked.

I fumbled for my share of it, but Billy said, "I will," and taking two dimes

from his pocket handed them to the girl. I thanked him, and noticed that the girl was eying him pretty steadily.

"Think I seen you afore," she observed with a peculiar squint in her right optic.

"Why, I always come here for breakfast, don't I?" asked Billy, smiling.

"Don't gimme none of that con," replied the girl. "You ain't no reg'lar in this dump. I knows 'em all. I seen your picter in th' paper, an' it didn't have them whiskers on it, neither."

Bill laughed and I laughed as we arose and started for the door. Just as we were emerging into the street, Billy called back: "Guess you've got another guess comin', sis."

"Mebbe I ain't mistaken," shouted sis.

I felt a little better. The food, the man's companionship, the promise of the work, the girl's blarney were all needed to balance the bleakness of the weather. Perhaps it wasn't going to be so hard to face the world after all. Perhaps I would find in Bill a good friend.

We walked to the station and sat down under the shed. He bought a newspaper and scanned it hurriedly. Then he passed it to me. But I didn't care to read.

"Tell me more about the hotel job?" I said.

"S-s-sh!" he replied, and looked queerly about him. "Don't speak of that now. I'll tell you about that to-night."

He looked around him again.

"Come," he said, "there is a park right up here. Let's go up there and sit for a while. It's much pleasanter than here."

"But it's raining," I said.

"That's nothing," he answered. "I know a place that beats this for shelter."

He started and I followed. I turned my collar up around my neck and thrust my hands into my pockets, for it was getting colder and colder—and I couldn't imagine why he wanted to leave the station where at least we were sheltered from the wind.

We entered a street that seemed to be a business thoroughfare. Neither of us said a word. After we had walked some three or four blocks I noticed two tall business-like men crossing the street in our direction.

They were looking straight at us.

There could be no mistake about that. I thought that they might be friends of Bill, so I nudged his arm.

Bill looked and caught their eyes. Then as if possessed with a demon, he suddenly turned and ran.

One of the men started after him, and I noticed that he pulled a pistol as he did so.

I stood stock still watching my vanishing companion and his pursuer, when the second man walked up to me and laid his hand on my arm.

"Anyhow, we've got you," he said.

"Me!" I said, choking and burning, "I don't understand—"

"You're under arrest!" he answered.

"Come with me!"

He began to lead me away by the arm; I heard a pistol-shot—then another. They seemed to be very close by.

Suddenly a crowd emerged from a side street. Bill had doubled on his tracks and was being pursued by the populace back to the spot where he had first seen the strangers.

I saw him coming in my direction. The man with me took a tighter hold on my coat.

I made a desperate effort to free myself.

This only made him grab me the tighter. He threw back his coat and exhibited a silver shield on his breast, on which I hastily caught the word, "Detective."

I knew then it was foolish to make resistance.

Bill was running in our direction. It was plain that he didn't see us.

The hunted look on his face, his staring, determined eyes, haunt me to this day.

On he came, the crowd close at his heels, yelling, "Stop thief! Stop thief!" The second detective was following in the crowd, but it was evident that he was afraid to shoot now for fear of hitting some one in the mob.

Then, as Bill came toward us, the detective, who was holding me calmly, reached to his hip-pocket for his pistol. I saw it gleam in his hand.

I saw him deliberately put his finger on the trigger—and wait.

He waited until the unfortunate man was barely twenty feet away, then fired straight at him. I saw Bill throw his hands up and stop just before the report—but it was too late.

Bill fell in the street, a great crowd around him. My custodian took a grip on my wrist, twisted it so that it brought my hand up to the middle of my back—and marched me off to jail. A crowd followed, and I could hear occasional mutterings about "bank" and "robbery"—and then it came upon me that I was in bad.

I tried to explain my position to the officer. He would not listen.

I was marched to the door of the city prison. An officer opened it, and closed it with a clang when my captor and I were safe inside. The latter did not relax his hold on me until we stopped in front of a high desk, behind which sat a heavily uniformed policeman—the head of his district.

"What have you got, Clancy?" he asked my captor.

"Doyle an' me landed Red Pete, the bank-robber, this morning."

"Did you have to shoot?" asked the man behind the desk.

"Yes. I pulled on him. Let him have it straight."

"Is he dead?"

"Don't know. It's pretty hard to kill them guys. He fell, anyhow, an' I hustled this feller off here."

"Who's this?" asked the man behind the desk.

"This," said Clancy, as he jerked me around so that I faced him, "this is Red Pete's pal. He's the fellow who pulled off that robbery at the Eagle Hotel on Monday night."

(To be continued.)

A work-train may be carrying as good brains as a private car, but you've got to prove it. It's what you are that counts, not what you claim to be.

Observations of a Country Station-Agent.

BY J. E. SMITH.

No. 26.—In Which Schwartz Tells of His Troubles While Purchasing Right-of-Way from Farmers, and Especially with "Pap," an Unwashed Antique, and His Bonehead Son.



It does not particularly matter what department of railroad work a man looks into, there is likely to be found something of interest—something out of the ordinary, showing unexpected slants of human understanding.

The greatest mind of the literary world made the truthful observation that "there are sermons in stones." On the railroad that means the stone-mason gang. If the stone-mason gang furnishes thrills of romance and adventure, why not the fence gang, the section gang, the bridge carpenters or the lineman? And it is true that in all these places there are stories of unusual experience and human interest.

A seeker of railroad stories should search these out-of-the-way places, and poke and rake about in these unpromising fields, and he is often rewarded with a find.

I had this idea in mind when one long day last summer I fell in with Schwartz.

Schwartz is our railroad real estate man. We are double tracking our road and Schwartz had been buying additional right of way along the line.

The public call it "double tracking." We of the railroad allude to it as the "second track." Both mean the same thing.

All along our right-of-way we needed little strips of land, ten, twenty, sixty or a hundred feet wide to complete the work of the second track.

It looks easy to go out among our neighbor farmers and buy, for a fair price, small parallel strips of land.

But Schwartz was sad and sunburnt. He talked disparagingly of the farmer.

"Don't make the mistake," he said, depreciatingly, "that the farmer is either an easy mark or that he is a friend to the railroad. He can't be coaxed, wheedled, cajoled or frightened into giving us an inch on a fair basis. He won't meet us half way—not a quarter of the way. He won't even come a foot in our direction.

"We've got to run him down and bivouac on his own premises, and hold him while we explain that we want a strip of his land, and that we will pay him well for it. When he finds we must have it, he sees at once that the land lying along the railroad is the most fertile on the farm, and that we are about to rob him of his most valuable possessions.

"Then he digs into the past for a generation or two, and revives all the old grievances of fencing, drainage, fire and stock claims he has ever had against the railroad, lumps them into a fine round aggregate, doubles the value of the land, stacks it all up in one grand total, and puts it up to us that we can have the strip—probably an acre all told—for nine hundred and forty dollars and eighty cents.

"This pays all the old debts that we do not owe, and includes the farmer's future good will, together with the ulti-

matum that not a "durned cent less will buy it."

When you tell a farmer that the railroad has made his farm what it is; and that without railroads his farm would not be a third of its present value, he looks at you with innocent surprise and asks:

"What would your blamed old road be if it wasn't for the farms, huh?"

That's the kind of an argument that goes around in a circle. It's nix on a farmer, because he knows he's the center of the universe.

"Take this country through here," continued Schwartz. "I had to purchase twenty-three strips along our right-of-way for the railroad. What did I run up against? Three things—sentiment, sharp practise, and pig-headed obstinacy.

"Maybe you would be interested to hear some of my experiences; you would, eh?"

Schwartz lit a stogie designed in Wheeling, slid down in the seat until he rested comfortably on the small of his back, and hung a few clouds of smoke about the circumambient. Then he began:

"I said sentiment, didn't I? You did not know people are sentimental about land, did you? Well, they are. The farmer and his family are associated very closely with inanimate things, and they become attached to them. His hedge fence, his meadow, his strip of woodland, all appeal to him with a sort of dumb affection that a man without a soul cannot understand."

I gave a quick nod to show that I understood.

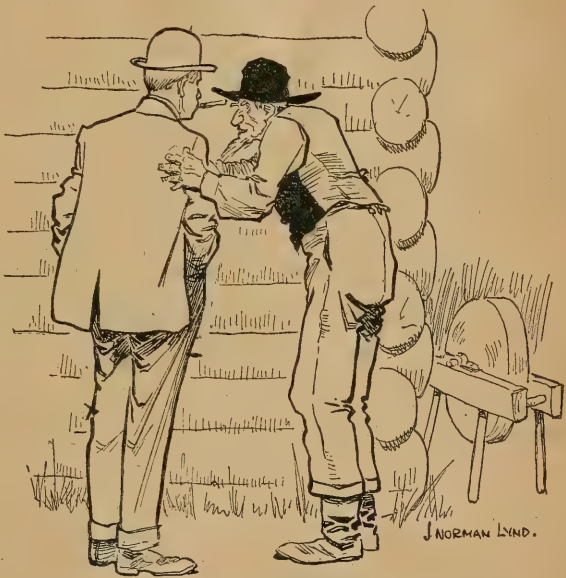
"All the farmers I approached with the explanation that we wanted a strip of land to allow the railroad to spread out a little, came back with the same expression, 'I ain't got no land for sale.'

"Then I explained that the railroad must have it. That its business had outgrown its present facilities. It now must have two tracks. That the business of the country is greater every year, and that we are forced to increase our capacity to take care of it. I presented ourselves

in the attitude of having to do this. That we were compelled by conditions to spend vast sums to enlarge our plant. We were driven to it and in reality we were unwilling purchasers of the strip of land needed.

"After I had presented the matter in this way to the first farmer I visited, I was pointedly informed that he had no land for sale.

"Now, the land was in his wife's name—a little forty-acre farm—and the poorest kind of a place. All we needed of it was a strip of twenty feet along a gully to give us room for a fill, and



"HER PA PLANTED 'EM THERE THE DAY HIM AN' HER MA WAS MARRIED."

the ground was so poor along there that grass would hardly grow on it.

"I offered them three times the real value, and I knew they needed the money.

"After a little while the man was willing to sell, but the woman would not listen to it.

"I argued the case with her, and told her as I told them all, that the railroad would take it anyway.

"We can take any property for the operation of our trains, through condemnation proceedings, but we only resort to the courts when everything else has failed.

"So I explained to the woman how we would proceed if she did not sell it to us, and how it would be to her profit to accept the figure I made her rather than drive us to that extremity.

"She was a little weezen, shrunken creature, and I saw she had a horror of going to the court, still she would not budge an inch.

"She did not try to drive a bargain. The price gave her no concern. She simply would not sell, and her reason was the purely feminine one of 'just because.'

"She shed tears and became hysterical.

"I would sell anywhere else on the farm except right there,' she cried.

"We could not use a strip anywhere else on the farm. We had to have the twenty feet at the gully to widen our fill. I tried to make her understand it that way, but she was absolutely immovable.

"It puzzled me why she was willing to part with a strip any other place, but was so unreasonably unyielding at the very spot we actually had to have.

"The man did all he could for me, but we made no headway with the woman.

"At length, he led me out behind the log barn and made a shamefaced confession.

"I'm ashamed of her, mister; I am, for sure,' he said, with a sort of weak-eyed lowness. 'It's just a durn cranky

idee of her'n. They ain't eny sense in it. You know they's two old apple-trees on that strip. That's the reason! It's them! They ain't much account. Her pa planted 'em there the day him and her ma was married. They was two children, you know—my wife and the one that died. They wus raised under them trees.

"Her pa ust to say he had four in his family: Ann and Sade and the Rambow and the Pippin tree. And, mister, if that woman has any sewing or work of that kind to do, when the days are warm, you'll always find her right out there under that pippin-tree. 'Tain't the apples, mister; it's 'cause of her pa. I hope you won't tell eny one, mister; I'd hate for it to git out. It 'ud kind o' disgrace us. You see, you'd cut 'em down. That's what worries her, mister.'

"I assured him I would say nothing. I also assured him that we would drop the matter for the present and give her time to struggle with her feelings. I left with the utmost contempt for that shriveled husband, who was ashamed and apologetic for perhaps the only touch of sentiment that had ever come under his observation.

"There now comes some darker history. Within six weeks both trees were dying. When this became apparent we had no trouble completing the deal and



J. NORMAN LIND.

"I DID NOT WANT TO BE UNREASONABLE AND HOLD YOU UP."

taking the possession of the strip.

"Why did they die? The husband told me with a half-exultant smirk and a cunning side whisper.

"He bored them to the heart, filled the holes with a solution of common salt and something else, and then plugged them up.

"His wife thought it was Providence.

"The husband saved himself the disgrace of his wife's emotions, and at the same time fastened his clutches on some railroad money.

"While this deal was pending I was busy with others in the same neighborhood. I made headway slowly.

"I could have dealt with many of the farmers without much delay, but I found that each had a pride in being able to drive a sharp bargain, and was fearful his neighbor would do better than he. They were all touchy on that point.

"Nothing hurts the pride of the farmer,—or humiliates him more, than to ascertain that another farmer has driven a better bargain.

"They can talk to me of captains of finance, industrial promoters, and hot-air purveyors of the cities, but when you undertake to put one over on a haystack artist you have got to be a pretty peart citizen or you will lose a bunch of cuticle in the operation.

"All this made it hard for me to secure an opening. Each farmer decided to wait until he saw what I was paying the others.

"I found it necessary to at least close one transaction, and thereby establish a price, so I selected what appeared to me to be the meekest brother for the initial onslaught.

"I picked him out from all the rest. He was a little, unassuming, pious, non-resisting man. He agreed so readily with all I said, and admitted every proposition so fully and freely, that I began to think he was going to make us a present of the strip through his farm.



"PAP'S GOT HIS MIND MADE UP. SO HEV I."

"I felt impelled to remind him that the railroad really had the money and was willing to pay a fair price. I wanted to caution him not to throw his land away.

"I admired and commended his broad public spirit, but I made it plain to him that the railroad did not expect this additional right-of-way strip without making some payment.

"I was to call on him again in two days. He wanted a little time to do some figuring. He wanted, you understand, only what was exactly right, but he could not tell offhand; and if I would come back in two days he would give me his proposition in writing.

"I went away in high spirits, and returned ditto.

"I felt that he was a conscientious old man, and I was sure he wanted to trim down his figures to the lowest possible limit.

"When I returned, he bade me sit. He asked after my personal welfare with a kind of Christian solicitude and humility.

He asked about our railroad, and expressed the mild hope that it was prospering.

"Some people are prejudiced against railroads," said he, "but I ain't. This country wouldn't amount to much if it wasn't for railroads. Some people are always taking advantage of them and holding them up for everything they can get out of them. I never believed in that. Right's right. I believe in being as fair and square in dealing with a railroad company as I would with one of my neighbors."

"He handed me an envelope.

"It's all wrote out and put down in black and white, what I will take to deed to the railroad that ten-foot strip. We're ready to make the deed any time. We'll sign up the papers any time you want us to. That ten foot amounts to three-sevenths of one acre. I called it a half-acre. That's close to it. I figured everything pretty close. I did not want to be unreasonable, and hold you up, like some people do."

"You asked me what the envelope contained. I haven't yet recovered from the shock of my first glimpse of the 'within document.' Remember, this party was hand-picked for an opener. His talk was so smooth and fair. I thought I was going to make a fine start. Mind you, I told him, in an hour of weakness, not to give his land away—that we actually wanted to pay something.

"There were four foolscap pages of disgusting details, itemized and listed in a fair hand.

"The grand total—the final consideration—for the one-half acre of raw farmland was carried to the very bottom of the last page and set down in large bold figures.

"What do you think farm-land sells for around here? One hundred dollars an acre. That's a fair average. A half-acre would be fifty dollars. I would gladly have paid him twice that, but I'll be jumped up if that innocent, unsophisticated personification of justice didn't make his figures on it one thousand three hundred and forty-two dollars and ninety cents!

"And I picked on him as the easiest one of the bunch. That's what hurts.

"How did he arrive at that magnificent

total? By going back to the time of Adam and coming down through the Dark Ages to the present day.

"You see, he thought he had us—that we had to buy his half-acre at any price—so he added everything to it he could think of.

"There were crumpled-tailed pigs, woolly sheep, short-horned cows, and other domestic animals slaughtered at regular intervals in time past by the railroad, and settled on a compromised value. All of these were indicated in an appalling list, and the difference justly due, as viewed by the owner, was carried out as a debit.

"For instance, here are some of the items that I remember particularly:

"June 5, 1873, the company's train killed a spotted calf. They paid me ten dollars. I consider the actual value of that calf, twenty dollars.—Balance due me—\$10."

"On an average, they kill one turkey, goose or chicken every two weeks. They do not consider a claim for a fowl. They say it is of no consequence. In forty years they have killed 800 fowls. 800 fowls at thirty cents each—a very low average—leaves due me for poultry, \$240."

"The railroad furnishes a highway for tramps. Tramps steal annually from me ten dollars' worth of produce. Total, forty years, at ten per year, \$400."

"The railroad section-foreman has carried water from my well in the barnyard for 40 years for his gang. Five per cent of cost of well and pump upkeep in forty years, \$63.20."

"Twenty-eight engines a day pass my field on the south, emitting dense black smoke which obscures the sunlight on ten acres, thirty minutes a day. Retards growth and maturity of crop one twenty-fifth. Total, two dollars per year, 40 years, \$80."

"Can you beat that last item? And to think, I picked on the author of it as the easiest one of the bunch."

Schwartz threw away a half-smoked cigar in disgust.

"Oh, yes, we finally got the half-acre. He came across. But not until we had our lawsuit with Blairs. Cost us about three hundred. That's so much we don't like to talk about it.

"I must tell you about the Blairs—there were two of them, father and son. They owned adjoining farms along the right of way. We needed a twenty-foot strip of each farm.

"I called on the younger Blair first. He gave me a very cool reception.

"This is my land,' said he. 'I own it, and I pay the taxes on it. When I want to sell any of it to the railroad I'll let you know.'

"Evidently it would have held up our second track work a long time if we had waited for Blair to let us know. He did not seem to be the 'let you know' kind. So I conveyed the information to him, with a sort of confidential assurance, that when a railroad had to have more land for additional running track, it could go into court and get it by condemnation proceedings.

"I added that we wanted to deal fairly with the people, and that we expected to pay more than the land was worth, but that we would not be held up for exorbitant figures, and that no man nor set of men could block the outlined improvement!

"This plain talk had no effect on Mr. Blair. He batted his weak eyes with a wise owl snap, and informed me once more that the land was his, and that when he wanted to sell any of it to the railroad, he'd let me know, etc. After that he assumed a sullen silence, and I made no further headway.

"I will see your father,' I said, taking up a new lead, 'and see what he thinks about it. If I can come to terms with him, I should be able to do so with you.'

"You can see pap if you want to, but it ain't no use,' said Blair. 'Pap's got his mind made up. So hev I. Ain't nothing can change us.'

"It can do no harm to explain matters to your father,' I argued. 'I want to put our proposition before him and give him the railroad's reason for wanting a strip of his land.'

"Pap knows his business. So do I,' Blair interrupted. 'When we want to sell any land to the railroad, we'll let you know.'

"He disposed of the whole matter a number of times by that ultimatum.

"Nevertheless, I went at once to 'pap's' house. 'Pap' was about the finest old ruin I have ever seen. He was



J. NORMAN LYND.

"IT ISN'T TOO LATE YET," I YELLED.
"YOU SHOULD TAKE A LITTLE TRIP—
SAY DOWN TO INDIANAPOLIS."

unkempt, unwashed, and uncared for. He had defied the invasion and ravages of all the germs of germdom, and had scorned every known law of sanitation. As a consequence, he was only eighty-seven years old, and deaf at that.

"All about him was a state of decay. The house was an early-day log. One corner had sunk down close to the ground, like a tired horse shifting its weight on one leg.

"I yelled my proposition to him with all the details; then I paused, partly for breath and partly for him to give some expression. He asked with a child's innocence:

"How old do you say I be?"

"About sixty-eight," I said, aiming for a complimentary shot.

"He gave a dry cackle.

"I was eighty-seven, second of last March. I ain't never rode on a train."

"Never rode on a train?" I repeated.

der, I got back to the original proposition and endeavored to show the old man that selling us a strip of land twenty feet wide would in no way impair his value as an antique. All I could get out of him was that he had never rode on a train. I showed him the land was rather



"ALL 'SON' COULD DO WAS TO
KICK THE DOG EVERY TIME
A TRAIN WHISTLED."

"No! Never been inside of the cars. Eighty-seven the second day of last March, and never rode on a train."

"It isn't too late yet," I yelled. "You should take a little trip—say down to Indianapolis—some day."

"Me ride on a train? Not me!"

"All at once I understood him.

"People have various ambitions. Almost every one wants place, power, or riches, but this old man wanted to be a curio. He wanted to be the prize fossil. He wanted to be pointed out as the man of eighty-seven who had never ridden on a train. The distinction he craved was that he had stayed hitched true to the prehistoric.

"People come from all around to see me," he added, with a show of pride. "At the old settlers' meetin' I sets on the platform, and the speaker tells 'em all about it. No, sir, never rode on a train."

"With superficial ejaculations of won-

der, I got back to the original proposition and endeavored to show the old man that selling us a strip of land twenty feet wide would in no way impair his value as an antique. All I could get out of him was that he had never rode on a train. I showed him the land was rather

"He never rode on a train!"

"—And that we would pay him double its farm value, and build him a new hog-proof fence clear through—

"He never rode on a train."

"—And that we would take care of his surface water, and our stone arch would be deepened to improve the general drainage of his place—

"He never rode on a train."

"After a fruitless chase around a circle a number of times, I sought the son."

"I ain't got nothin' more to say," said the son, squinting at me through narrow eyes. "I'll do what pap does, and nothin' else. If pap will sell you a strip, I will. But, understand, we ain't got no land for sale. Gidup!"

"I beat it to the old homestead to have another talk with pap."

" 'I'm back again,' I called out cheerily. 'I just had a talk with your son. He says that if you'll sell us a strip of your land, he'll do the same.'

" 'He told you so, too, didn't he? Yes, sir, I ain't never rode on a train!'

" 'He said he'd sell if you—'

" 'Some people say it ain't so. I kin prove it! No, sir, I never rode on a train and I'm eighty-seven—eighty-seven the second day of March.'

" 'You see we must have the land—'

" 'Ain't many can say what I can when they git as old as I am, that they ain't never rode on a train!'

" I hurried to the son.

" 'See here,' I said to him. 'I do not think I can come to any agreement with your father. He doesn't seem to grasp the proposition I am making.'

" 'Well,' replied the son, 'I'll do what pap does. But we ain't got any land for sale. Gidup!'

" I could not make any headway with that precious pair. The son was hostile but evasive. He kept me running to 'pap' on an impossible errand. 'Pap' was complimented with my visits. He thought I was down there through a keen curiosity to see the rare old man, the backwoods oddity, the pioneer wonder that had never ridden on a train.

" Negotiations came to a standstill.

" I threatened 'son' with court proceedings.

" The answer he returned offhand was that if any railroad man attempted to come on his side of the fence with pick and shovel or a surveyor's outfit, he'd fill him full of buckshot.

" He put up a sign 'No trespassing.'

" Now, the progress of a great enterprise does not halt at a sign, nor can it be stayed by the buckshot argument of a hostile land owner. In this case we went into court.

" They opposed us at every angle and they were venomous in their opposition.

" But we got the land, and we paid them less than we had offered before we started proceedings.

" The whole thing was nothing but pig-headed obstinacy arising from an ignorant prejudice against railroads.

" It was a great revelation to 'son' to learn that land belonging to him could be taken for railroad purposes regardless

of his attitude in the matter. He could not understand it. He did not know there was anything beyond private ownership. He does not know yet what they mean by 'rights of the community' and 'eminent domain.'

" As for 'pap,' that fine old antique, he got to tell the judge, the lawyer, the appraisers and all others in the case, that he 'hadn't never rode on a train.'

" Encouraged by a cunning lawyer who found him good picking, 'son' came back at us with suits for damages, suits for trespass, and injunction proceedings.

" Nevertheless, we fenced off the strip. A trusty steam shovel reduced it to the proper grade, and a new track holds it forever.

" For a long time, all 'son' could do was to kick the dog every time a train whistled. And 'pap' not only assured all concerned that he'd never rode on a train, but 'ding blast his hide if ever he would.'

" By and by, a new and brilliant idea percolated 'son's' thick head.

" He plotted a half acre of ground on the top of the hill, and named it 'High Point Cemetery.'

" It abuts the railroad right-of-way, and the railroad can never encroach on that sacred reserve. We can never again widen our right-of-way on his farm.

" The law recognizes a burial-place as a hallowed and consecrated spot. 'Son,' in his malicious resentment, has headed off any further advance we may ever want to make in his direction.

" Kind and considerate Providence helped the scheme along by removing 'pap' from this 'vale of railroads.'

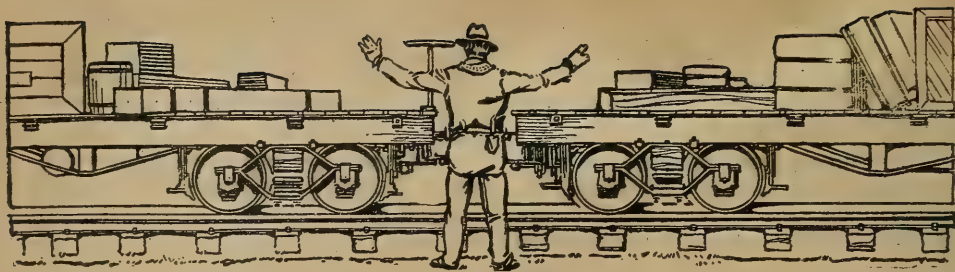
" 'Son' planted him one foot from the right-of-way fence.

" They will not expect the railroad to furnish an epitaph, but here's one anyway—borrowing an expression from a pure-food-law label. It has the flavor of Shakespeare:

P. A. P.

Lived 88 years and never rode on a train.
Was agin all things that's modern,
Automobiles, baths, and phones.
And curses be on the railroad
That dares disturb these bones.

" I could tell you more," said Schwartz, "but I'm out of stogies. I need the dope to keep me thinking."



THE GOLD COUPLER.

BY AUGUSTUS WITTFELD.

The Star Detective Uses His Skill and Mental Telepathy to Penetrate a Mystery.



CARLOCK BJONES was the star detective of the Pole-to-Pole Railway. When I stepped into his sumptuous apartments and found him intently scrutinizing a coupling-pin, he gave me a quick glance, and said:

"Ah, Watchem, I see you have lots of leisure; and as your wife has gone away, I feel that I can depend on you to join me in this case."

I gasped.

"Remarkable!" I ejaculated. "It beats the time-table how you deduce these things that none but myself am aware of."

"Dead easy," he replied. "You have on a bright red necktie. That fact proclaims to the world that your wife has gone to the country. You generally shave yourself; but, as you have a clean shave and your face is free from gashes, I know that you have been to the barber's. That, and the fact that you have been playing pool, is evidence that you have time to offer up on the altar of ennui."

"But how do you know I have been playing pool?" I asked in an awestruck voice.

"Well," he replied, "you have chalk on the lapel and tail of your coat, and also between the thumb and forefinger of

your left hand. That can indicate nothing but that you have been playing pool."

"I might have been playing billiards," I suggested.

"Yes," he replied; "but you don't know how."

"Carlock," I commented, "you're a wonder. What is the case you are working on?"

"This," he replied, "is the most perplexing case that has come to my notice since I recovered my sanity. The time Pushem lost forty minutes on his run, and I was assigned to the task of discovering and returning them, was a kindergarten proposition to the problem that confronts me now."

He paused, and, filling his pipe with a piece of oily waste, he lit it. Then, baring his arm, he vaccinated himself with an ivory point.

"I am doing this," he said, "to make it difficult for me to catch anything. I hate to work on an easy job."

"But what is this case that is baffling you?" I asked.

"Watchem," he replied irritably, "how often have I told you that you should be more perspicuous in your remarks? I am not baffled. I am never baffled. I may be perplexed, but not baffled. Perplexity is what gives zest to my art."

"The only time I was baffled was when I was run over and cut to pieces by the night express. Then my skill in putting jig-saw puzzles together stood me in good stead, and I was quickly on my feet. What baffled me was the fact that people thought me a dead one when I was merely run down.

"I received this coupling-pin in a letter this morning. Even with my wonderful power of perception, which I have cultivated with the latest approved patterns of cultivators, I might have overlooked it had it not dropped from the envelope and struck me on the pedal extremity. Had it struck me on the head, I would not have thought much, but I instantly reasoned that there was something on foot."

He opened a sub-cellarette, and pouring out a glass of benzin, he tossed it off neatly. Then, striking a lucifer, he ignited his breath, and his face was illumined.

"What is it?" I gasped.

"Just a light luncheon," he replied.

When he had finished his naphtha lunch, he picked up the coupling-pin and gazed at it intently.

"Watchem," he asked, "do you notice anything unusual about this coupling-pin?"

I gazed at it quizzically.

"Nothing," I replied, "except that it is a coupling-pin."

"Watchem," he said, "I cannot see that the constant grind of domesticity has sharpened your wits appreciably. Cannot you see that it is made of gold?"

"Wonderful," I ejaculated.

"But why should any one send you a gold coupling-pin?" I asked.

"Let us reason this thing out by deduction," he replied.

"Had the sender wished me harm, he would have sent me a dynamite bomb or a safety-razor. The fact that he sent me a coupling-pin can indicate but one thing, and that is that he wishes to couple up with me. You don't have to be link's-eyed to detect that. But the motive? We must search that out. What do you make of it, Watchem?"

"I'm afraid I'll have to give it up," I ventured.

"Yes, but I don't propose to," he replied. "It's not every day that some one

sends me a gold coupling-pin, and I propose to keep it."

"Did the letter give no clue to the sender?" I asked.

"Ah, Watchem," he commented, "you are improving; I had forgotten to read it."

He rescued the letter from the wastebasket, where he had thrown it, and, shutting his eyes, he read it to me.

It ran as follows:

MR. CARLOCK BJONES, NEW YORK CITY,
N. Y.:

DEAR MR. BJONES—I am enclosing you a sample of our new coupling-pin, which I am desirous of having adopted by the Pole-to-Pole Railway. Knowing of your connection with the railway in question, and having read of your extraordinary ability of fastening things upon those who are unwilling to have things fastened upon them, I am sending you the enclosed as a retainer for your services in having your road adopt this pattern of pin. The draft pins are made of the finest quality of Graft steel, while those which are intended for exerting a pull on the purchasing end are as you will notice, manufactured from eighteen karat Graft gold.

I will be pleased to see you at my hunting-lodge in the Arrowdondacks this evening, when we can discuss details. Very respectfully,

E. Z. GRAFT.

"There is more in this," said Carlock, "than appears on the surface. No man has ever had to offer me a bribe twice. Watchem, we must make haste ere the promoter of this useful device changes his mind. No man can make me such an alluring proposition and escape.

"Watchem," he hissed, "before the clocks strike the hour of midnight I shall have the signature of E. Z. Graft to one of my non-breakable contracts. Come, we lose time! But wait! I have an idea. Why should we consume time in going to the Arrowdondacks when it is in my power to summon our quarry to me by my marvelous telepathic powers?"

He rapped sharply upon the table two or three times, and then muffled himself up in the raps, which made him look like a mahatma doing the esoteric. I could see his massive mind working behind his impassive brow as he concentrated upon the task in hand. His power in that line

was marvelous. Often have I seen him wink ominously to the drug clerk.

His massive brows were knitting like a stocking-machine, while beads of perspiration stood upon his forehead ready for the stringing. Suddenly an automobile-horn sounded outside, and we heard the moan of an emergency-brake at Carlock's door.

"Hist!" he exclaimed. "It's he."

Expectantly, we waited. The silence was disquieting. Suddenly the elevator-doors clanged, and the indicator inside Carlock's door announced the fact that a portly gentleman weighing two hundred and seventy-six pounds stood upon the mat, outside the portal.

There was a knock. Carlock glided to the door and threw it open. The visitor entered, staggering, and would have fallen had not Carlock prevented him.

"Mr. Carlock Bjones?" he asked.

"That's me," replied Carlock. "You are in trouble. Really, my dear sir, you should get married; then you could tell

your troubles to your wife without having to come to me."

The portly party paled. "How do you know all these things?" he asked.

"It is my business to know everything," replied Carlock. "I know you are not married, because nobody loves a fat man. I know you are in trouble, because you own an automobile, and I know that your chauffeur has left you because you used the emergency-brake in making a social stop. A chauffeur never uses a brake of any kind. He goes ahead and breaks the machine by running into something."

"Marvelous!" gasped the visitor. "As you know these things, perhaps you can tell me my name."

"E. Z. Graft," replied Carlock.

"You lose," said the portly party. "E. Z. Graft was arrested this morning for bribery."

"Then, who are you?" demanded Carlock.

"That," said he, "is another story."

TIE FARMS FOR THE PENNSYLVANIA.

To Plant Over Three Million Black Locust and Red Oak Trees for Future Road-Bed Construction.

SINCE it has become apparent that the timber supply is decreasing, and with it the supply of suitable timber for railroad ties, the large transportation companies are taking steps which will ensure available timber in the future.

The Pennsylvania Railroad Company is acting under the pressure of economic necessity, the growing scarcity of railroad ties and the increasing cost of those available having pointed the necessity of making provision for the future.

This great undertaking calling for professional skill of a high order, a very considerable outlay of land and capital and a patient waiting for results, is in line with other similar forestry experiments by railroads in the United States, but differs from

all of them in its magnitude. It is contemplated to plant three and a-half million trees within a period of eight years.

Unlike some of the railroad "tie-wood plantations," those of the Pennsylvania are not confined to the cultivation of the quick-growing catalpa, but give preference to black locust and red oak. And the effort is not confined to the cultivation of suitable timber, but involves the study and eradication of insect enemies of different trees and the perfection of wood preservative processes.

Altogether the work is a complex and different one, but if it results in securing to the railroads a regular and adequate supply of the material it will probably justify the cost and trouble.

To keep popular with the back-shop men, keep out, keep out of the back shops.—Epigrams of the M. M.

Ten Thousand Miles by Rail.


BY GILSON WILLETS,

Special Traveling Correspondent of "The Railroad Man's Magazine."

WE are again down in Dixie-land with Mr. Willets. Through the medium of the yarns that he spins here, we encounter hairbreadth escapes from death with the Kuklux Klan and we meet other dangerous persons, including that band of marauders known as the Night Riders. Those outlaws seemed to hold a peculiar grudge against railroad men, and the stories that the boys have given our traveling correspondent indicate that many a Southern train-crew started out with its life in its hand. Mr. Willets has called these little stories dramas—and dramas they are in the truest sense of the word. Each one contains the elements of a stage play.

No. 2.—MORE DRAMAS OF DIXIE LAND.

The Hobo and the Ice-Water—Defying the Night Riders—The Tobacco War—One Man's Slaughter—K. K. Hanging Parties—Zach Martin's Story—The Stolen \$50,000.

HAD not been in Bristol, Tennessee, half an hour when a detective-story was literally thrust upon me. Nearly every railroad man I met on that Queen and Crescent trip seemed bent upon pouring into my ears a "special officer" story. Here's the one I heard at Bristol:

Detective Gene White, of the Southern Railway, was standing on the platform at the Bristol Station, waiting for the train for Washington. Seeing a man slouch past the station and down the tracks, White said to himself:

"It's Porter Wynn, the hobo. What's he up to now?"

White followed the man of the slouchy gait—followed him through the Bristol yards till finally he saw the hobo climb into an empty freight. White walked up to the door of the car and called:

"Come out of there!"

"You go away, and I'll come out," answered the man inside.

"No; I'll stay right here," White retorted.

"You will, will you?" called the man inside the car. And with that, he let fly at White—fired straight at the detective, who was standing within six feet of him.

White fell. The hobo ran for his life. White was found, seriously wounded, by Earl Smith, of Bristol.

White had once befriended Smith in an hour of need; and so, when the young man reached the station with his sorry burden, he said to the station-master:

"I saw the tramp who did this job, and I'll know him when I see him again. I mean to find him—you just watch me."

Next morning, Smith—dressed now as a hobo—took a train for Bluff City, Tennessee. He believed that the man who shot White would make his way down the track to Bluff City.

Arriving at Bluff City, Smith went to the water-tank, sat down, and waited.

Surely enough, the tramp came slouching down the track. Seeing one who appeared to be of his own class, he accosted Smith, and the two engaged in conversation for more than half an hour, till finally the tramp said:

"Wonder where I can get a drink of water?"

"At the station," promptly replied Smith. "Come along. I'll show you the water-cooler."

They entered the station, and Smith led his prey to the cooler, and bade him drink. As the tramp lifted the cup to his mouth, Smith suddenly cried:

"Drop that, and throw up your hands, Porter Wynn!"

Wynn looked up to find that he was staring into the wrong end of a big gun.

"Sit down," ordered Smith.

In Custody.

Wynn sat, and his captor relieved him of his gun, and kept him covered till an east-bound freight came along, on which Smith convoyed his captive back to Bristol.

After turning his prisoner over to the authorities, Smith went to the hospital, where Detective White lay suffering.

Smith told him what he had done.

"You're a born special officer," groaned White. "The Southern Railway will need you—when you grow up."

The explanation of "when you grow up" is that the young man who disguised himself as a hobo and went down intuitively to the place where he believed the man who nearly killed his friend would appear was barely sixteen years of age.

Bristol railroad men assured me that the Southern Railway really intends to employ Earl Smith as a detective "when he grows up," and, as Earl Smith is now nearing the age of twenty-one, he hasn't much longer to wait for the promised job.

Defying the Night Riders.

At both Knoxville and Chattanooga, railroad men related stories of uncomfortable and even fatal experiences of train-crews with the famous raiders of the South—the Night Riders.

At Knoxville, Engineer Hawley, of the Southern Railway, told me of an experience of a friend of his—Engineer Buck Thorn—commonly called "Buckthorn"—with Night Riders at Russellville, Kentucky.

It was on a night in January. Buckthorn was pulling a Louisville and Nashville passenger-train slowly into Russellville, when suddenly he saw a big blaze rising from the middle of the town.

"It's the Night Riders!" he cried to



his fireman. "They're burning the tobacco warehouses here!"

"How do you know?" the fireman asked.

"Instinct," answered the engineer. "The town is asleep. Blow the whistle."

On the track ahead Buckthorn and his fireman beheld a band of men wearing black masks. Some carried rifles; others lanterns, which they waved as a command for Buckthorn to halt his train. Buckthorn brought his train to a stop, and, while the masked men swarmed around the engine, the leader cried:

"You, there—in the cab! You're Buckthorn, are you not?"

"Yes," came the answer.

"Do you want to be alive to-morrow night this time?"

"I certainly do."

"Then, don't you blow that whistle or warn the town in any other way of what you see happening to the warehouses. You may proceed."

Buckthorn proceeded. But the moment the train entered the town limits he began, with daredevil courage, blowing the whistle.

One prolonged shriek—a screech of alarm that lasted during the time consumed by his train in passing through the town.



Past the station he flew, knowing that if he pulled down his life would not be worth a penny. If there were any passengers on the train who wanted to get off at Russellville, they were carried by.

The Torch Applied.

The shriek of that locomotive-whistle awoke the town. The citizens rushed to the rescue of the burning warehouses.

The L. and N. road foreman of engines advised Buckthorn, the next day, to lay off for at least two weeks, and stay in hiding. The engineer did so for two days, and then reported for duty.

"I'm going to make my ruin," he said, "and to the winds with the Riders!"

He and his fireman carried rifles, as well as revolvers, for a month after that,

but they never had a chance to use them. Buck Thorn is alive and well to-day.

The Tobacco War Hero.

At Chattanooga, a trainman of the Southern Railway, James Riley, known on the line as "Little Jim," told me of the experience of two employees of the Louisville and Nashville during a raid of the Night Riders at Hopkinsville, Kentucky.

Peter Morgan was the watchman at the Hopkinsville depot. The hour was midnight; and, seemingly, the only person awake in the whole place was this same Peter Morgan. It was his duty to watch not only the passenger-station, but also the freight-house, where much tobacco was stored.

While Morgan paced up and down outside the passenger-depot, six men wearing black masks suddenly loomed up in front of him, seized him, and, before he could cry out an alarm, tied a piece of tobacco-bagging over his mouth. They threw him on the ground, and bound him hand and foot.

One of the men then sat down beside him with a shotgun across his knee. He did not speak a word.

Morgan knew that the Night Riders had come.

As if rising out of the earth, scores and scores of masked men appeared at the station, the helpless watchman estimating that they numbered at least two hundred. The station door was forced open, and they filed in.

Morgan was carried in and laid on the floor, while the Night Riders maintained absolute silence.

The leader appeared and parceled his men in squads, numbering from six to twenty. Then all filed out again. Only the bound watchman and his silent guard, with the shotgun across his knees, were left.

In the Mouth of Death.

Five minutes later the sky was illumined by a mighty blaze. The tobacco-warehouses were afire. Morgan heard shots and the cries and curses of men and groans of women.

It happened that a train of cars loaded

with tobacco stood near the station. To this train some of the raiders applied a torch, and then went to help their comrades at the warehouses.

Silas Lyman, an L. and N. trainman who happened to be laying over in Hopkinstville that night, while making his way down to the station saw the raiders set fire to the train-load of tobacco. Lyman hid behind a tree till the torchmen ran off toward the town.

"By Jove!" exclaimed Lyman. "I think I can save that end car."

He dashed to the train, sprang in between the two last cars, and uncoupled them.

"She's loose," he told himself, "but how am I to move her? I need something I can use as a lever."

The Burning Train.

He thought a moment, and remembered a tool-box near by. Running to the box, he found that the section-men fortunately had left several tools lying on the ground, among them a crowbar used for moving rails.

Leyman seized this and ran back to the burning tobacco train.

To his joy he found that the flames had not yet reached the end car. Using the crowbar as a lever, he got the car into motion, when—*Ping! Ping!*

Lyman fell in his tracks wounded.

Thus Silas Lyman, L. and N. trainman, became one of the heroes of the tobacco war. At the time, he was not on duty. In the voluntary act of trying to save property entrusted to the railroad from which he derived his daily bread, he nearly lost his life.

He suffered for months from the almost fatal bullets. Without one warning word he had been shot down by members of the latter-day Kukulux Klan.

"Oh, yes, Tennessee and Kentucky are peaceful States these days," added the Chattanooga trainman. "And G'o'gia is sometimes just as peaceful—in another way. If you want to hear the G'o'gia end of the business from a railroad man's view-point, you go over to Chickamauga and see old Jake Wylie. He's a retired Gainesville Midland railroader, and he'll tell you all about the peaceful times in his State."

I acted on the trainman's tip.

One day in August, 1909, a train of the Gainesville Midland Railway began pulling away from its terminal at Monroe, Georgia, bound for Belmont, a run of thirty-two miles. The conductor, in passing through the Jim Crow car, overheard one of the passengers say:

"Ah ain't got no ticket, but Ah'm goin' to ride to Belmont just the same."

The conductor promptly pulled the signal-cord and, after a long argument, the train went on minus the negro.

Later in the day, that same negro appeared at a general store in Monroe and asked for some buck-shot. The absent-minded clerk gave him, instead, some bird-shot. That mistake probably saved the lives of a number of railroad men as well as the lives of over a score of citizens of Monroe.

The following morning, the manager of the Western Union office in the depot, Sam Stannard, came rushing into the office of Train Dispatcher Joe Thompson, crying:

"D'ye hear those shots up street?"

"Yes. What's up? A war?"

"A railroad man has been shot. And—you've got *two* guns, haven't you, Joe? Give me one of 'em. You take the other. Now come along to the front."

The train despatcher and the telegraph man rushed up the main street, when suddenly Joe Thompson staggered and fell, peppered with bird-shot.

The report of a gun had come from somewhere in the arcade of the Bank of Monroe. Toward that place Sam Stannard started.

"Wait a moment, Stannard!" cried a man, running up and joining the telegrapher. "I'll go with you. It's that negro, 'Bully' Wade."

Like a Battle-Field.

The newcomer was Dr. Forsythe, the mayor of Monroe. He had hardly spoken the name, "Bully" Wade, when down he went, too, wounded in the leg.

Stannard now looked around bewildered. All over the street lay men, wounded as on a battle-field.

Stannard saw Steve Burke, one of the railroad telegraphers, running toward

him—when down went Burke with a wound in the head.

Then along came Roy Fisher, one of the call-boys of the G. M. R. R. He, too, fell before the negro's gun.

Joe Kendall, the trainmaster, next fell with a volley in his breast.

Ed Strong, cashier of the Southern Express Company, and Jack Marryman, the Southern Express agent at the depot, were the next victims.

Besides these railroad men, some twenty citizens of the town were laid low by the double-barreled shotgun in the hands of "Bully" Wade.

"Some one's got to kill that man!" said Stannard, with a glance at the prostrate forms of his friends and co-workers. "I guess it's up to me."

With that, he walked deliberately up to the enemy, but not while the enemy was reloading his gun—no, but just as the enemy pointed his gun at the telegraph man and pulled the trigger.

Bird-shot whistled all round Stannard, but still he advanced on the enemy till he looked straight into his eyes.

"Bully" Wade fired his last shot—at Stannard.

A second later the enemy was no more.

President Baldwin, at Savannah, and General Manager Eppes, and General Freight and Passenger Agent Veazey, at Athens, each received this message:

Depot and yard force here nearly all out of commission as the result of a

battle in which twenty-nine white men were wounded and one negro killed. Send twelve men and trained nurses.

"Who killed the enemy?" asked Train Despatcher Joe Thompson, some days later when Stannard visited him at his bedside.

"Don't know," replied Stannard. "The station-master, and the baggage-man, and the station-porter, and the yard-master, and two trainmen, and a conductor, and one or two engineers, and about three section-hands, and yours truly, all fired at the same time—I think."

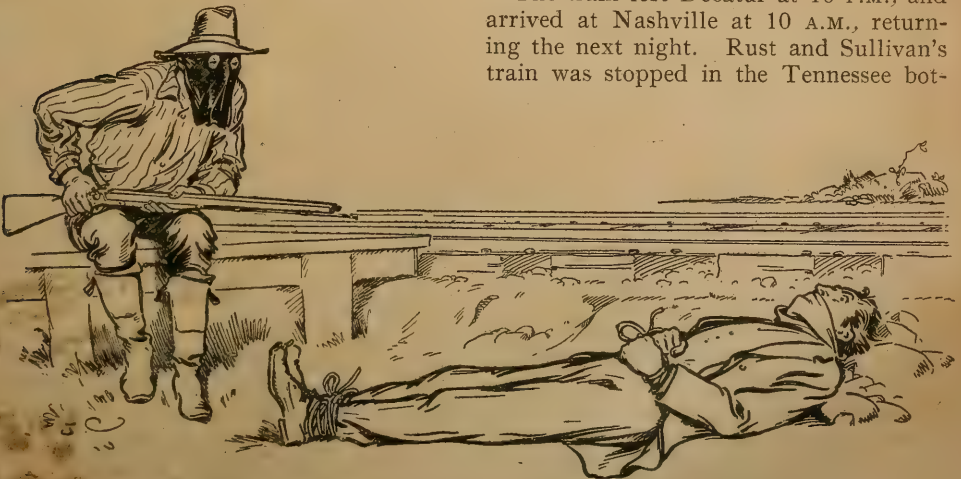
Kuklux Hanging Parties.

Engineer "Hen" Rust and Conductor Sullivan were in charge of a night passenger-train out of Decatur, Alabama, on the run through the Tennessee bottoms up to Nashville.

Their "command" consisted of three trainmen, who worked the hand-brakes whenever "Hen" Rust called for a stop. For some unaccountable reason, their train was extremely popular with certain citizens, who had the misfortune to be regarded as undesirable by the Kuklux Klan.

It was on the old Nashville and Decatur Railroad connecting at the Alabama town with the Southern Railway, and at the Tennessee town with the Tennessee Central.

The train left Decatur at 10 P.M., and arrived at Nashville at 10 A.M., returning the next night. Rust and Sullivan's train was stopped in the Tennessee bot-



ONE OF THE MEN SAT DOWN WITH A SHOTGUN ACROSS HIS KNEE.

toms somewhere about midnight, about every third night, by men shrouded in white-cotton sheets with slits for eye-holes. These white apparitions, Rust and Sullivan called the "ghosts of the rail."

The ghostly ones would stop the train by waving firebrands across the track. Then they would take one of the undesirables from the train, lead him off the right-of-way to the nearest cedar-tree, and order the train crew to come along and witness the proceedings.

After attending about a dozen of these nocturnal hanging parties, Rust and Sullivan and their crew were unanimous in agreeing that the thing had become monotonous, and that the next time the white-robed executioners appeared and ordered out the train-crew to witness a hanging, to a man, they would decline the invitation.

Meantime, Conductor Sullivan, in the opinion of the K. K.'s, had joined the undesirable class, Sullivan's crime being that he had told, with harrowing details, stories of the hangings he had witnessed, and, in particular, how he had seen three bodies swinging on one cedar.

Then came the night when Sullivan and Rust, and their three minions of the brake-wheels were to "strike" when ordered to come forward and watch a swinging.

It was some time after midnight—the usual time. The train was running through the Tennessee bottoms—the usual place. Once again Rust beheld the "ghosts of the rails" waving firebrands across his track. To avoid a fusillade of shots, he whistled for brakes.

The Meeting Called.

Immediately, the train was surrounded by K. K.'s. The engineer knew that some undesirable was being carried off the train. A voice beside his cab, said:

"Reckon you want to witness this yere meetin' out of justice, partner."

"No, I don't," answered Rust, not so much as turning his face to the speaker.

"Yes, you do, partner," insisted the man beside the cab. "You want to attend this meetin' mighty bad. Now you're a handsome cuss—and I'd like to take a look at your face. Turn round."

Rust swung round to find himself looking into the muzzle of a rifle.

"You're powerful interested in this meetin', partner," said the white-sheeted man behind the Winchester. "Get down and come right along."

"No," protested Rust. "I'll stay here. You don't need me. I'll take your word for the meeting. Me and my conductor and my crew don't want to attend no more meetings of yours. We are tired of them. We're staying on the train to-night."

"You're mistaken, partner. Your train-crew is on hand, all of 'em, especially your conductor. Come on now, or we'll take you anyway."

The upshot of this matter was that "Hen" Rust left his cab and proceeded in the company of the K. K.'s, to the usual spot chosen for the night's hanging.

And There Was Sullivan.

What was his amazement, when he arrived at the cedar-tree, to find that the central figure of the entertainment was none other than Conductor Sullivan.

There stood Sullivan surrounded by the sheeted K. K.'s with a lariat around his neck, and his eyes staring upward along the lariat to where it was thrown over a stout limb.

"You're not goin' to swing Sullivan?" cried Rust. "What's *he* done?"

"He's been spraddlin' information around Decatur and Nashville," said one of the K. K.'s, "which is some ag'in the code of honor upon which we-all have from time to time duly invited him to attend these yere meetin's. But look here, Rust. What we-all is goin' to propose now, is to give this conductor just one more chance to live. He must promise and you must promise and your crew must promise that this Sullivan man will hereafter for all time go away from this region and never come back."

"Oh, is that all you want?" cried Rust gleefully. "All right! take that rope off Sullivan. We promise he'll never run again through these bottoms."

Sullivan was released. And the train-men abandoned that run.

At the station at Montgomery, Alabama, I found a tremendous crowd of outgoing passengers.

"Is this a usual crowd?" I asked the conductor.

"It's a usual Saturday crowd, sir," he replied.

"But why Saturday?" I asked.

"Excursion rate—round trip for a one-way fare, sir. We call them Saturday - Sunday excursions because the tickets sold at that rate are good Saturday to Monday—over to Atlanta, or up to Birmingham and Chattanooga or down to Mobile and New Orleans. My name's Frobeck."

ager named Cecil Gabbett. The three of them, plus the catamount, started the week-end excursions which are now so popular throughout the South.

"It was on the Atlanta and West



Thus began an acquaintance which led to yarn-spinning on Frobeck's part, in the course of which he said:

Cats and Cats.

"Tell you what started these Saturday-Sunday excursions, sir. It was a cat."

"Cat?"

"Yes, sir. A dead cat. A cat about five feet long, sir. A catamount. Besides the cat, there was an engineer named Jack McWaters, and a conductor named Zach Martin, and a general man-

Point Railroad," Frobeck continued. "The engineer and conductor whom I've just named were running a train up to Atlanta from Montgomery. At Gabbettville, when the train stopped, a man stepped up to McWaters and offered him a dead catamount which he himself had just killed—saying the engineer could have the carcass for two bits.

"Just for fun McWaters bought the cat and tied it by the tail to the bumper of his engine with the body spraddling down the pilot.

"At every station all the way to Atlanta crowds gathered round the engine

and asked McWaters no end of questions about the catamount.

"Now, hitched to the end of that train was the private car of the general manager, Cecil Gabbett. After five or six stations had been passed with crowds swarming around the engine at each place the G. M. called for the conductor, Zach Martin, to come to his car.

"The G. M. asked him what all the fuss was about. Zach told him about the catamount and then added:

"There are lots of folks in these crowds—who would like to spend Sunday in Atlanta. But they complain that the fare is too high. They can't afford it."

"Why not make a special Saturday-Sunday excursion rate?" suddenly exclaimed General Manager Gabbett.

"Yes," replied Martin. "Take 'em up to Atlanta and back for the price of a one-way ticket—and you'll get 'em in droves."

"And the thing was done," Conductor Frobeck said in conclusion.

The Southern Pacific.

From Espee men in Los Angeles, I gathered the facts of a remarkable case of railroad sleuthing that might be entitled: "A Railroad's Human Bloodhounds, or The Deep Dark Secret of Fifty Thousand Dollars."

A train over the new Brownsville railroad of the Texas Gulf Coast pulled into the Brownsville station. A minute later, Fireman Charles Beeler fell in a faint on the floor of the cab. Members of the train crew lifted the fireman out of the cab and laid him on the ground. Presently he regained consciousness and his first words were:

"I'm going to die, boys, because I've nothing more to live for."

To no one did he explain why he had "nothing more to live for," but all could see that Fireman Beeler was a very sick man, though not so far gone but that he felt he could stand the journey back to Houston—which he did. Soon after arriving at Houston, however, the railroad men lost all track of him.

What had become of Charley Beeler?

In a shack on the outskirts of Houston, a light appeared. Those living in the neighborhood had not seen a light in

that shack for two years. In all that time it had been unoccupied.

Toward that light now, on the night in question, a man unknown to the neighborhood made his way stealthily till he reached the door of the shack. Then suddenly he shoved the door open, entered, and found a man lying on the floor.

"I want to talk to you, Beeler," said the visitor.

"I'm perfectly willing to talk," answered the man on the floor, in a weak voice.



RUST SWUNG AROUND TO FIND HIMSELF LOOKING INTO THE MUZZLE OF A RIFLE.

"You know me?" asked the newcomer.

"Yes. You're Anderson, one of the Espee's bloodhounds. I know that you and others have been watching me for five whole years. But the game's ended, cap. I'm all in. I crawled in here to die."

"Then I reckon you're ready now to tell where you hid that money."

"I am," replied Beeler. "I'll tell you the whole story, and when I've finished



you Espee bloodhounds will quit my trail and leave me to die in peace, 'cause you're goin' to believe my story."

Beeler related a tale as thrilling as a melodrama. It was, as nearly as the Espee men in New Orleans could remember, as follows:

One evening in the spring of 1907, the money-clerk of Wells, Fargo & Company, at San Antonio, Texas, left the office and went home to supper. At the finish of the meal the clerk's pretty wife, Anna, said:

"Charley, take me to the show to-night, will you?"

Charley said, "you bet!" After supper the wife dressed herself in her very best.

"But it isn't much of a gown, is it?" she said, then added that she wished she had at least one pretty frock such as one of those worn by the manager's wife—meaning the local manager of Wells Fargo.

Now Charley Beeler—for that was the clerk's name—loved his wife deeply, and wanted to please her.

That night she broached the very subject which, for a long time, had been one of Beeler's manias, namely, that such a fine-looking young woman should have fine clothes.

The Promise.

"Hang it all!" he exclaimed, "you shall have as fine a dress as any woman in San Antonio. I'll get it for you, somehow."

"How?" asked the wife.

"I'll earn it, of course."

"Good!" she exclaimed happily.

On the way to the theater, Charley Beeler was so absent-minded that he failed to hear remarks his wife addressed to him.

"What are you thinking about," she asked, "that you make me repeat everything I say before you answer?"

"I'm thinking of your new dress," Charley replied.

At the theater he bought two of the best seats, took his wife in, seated her, then suddenly said:

"I'll have to leave you alone a while. I must do an errand down at the Espee Station. I'll be back in time for the second act."

Next morning, railroad and express circles in San Antonio were agitated by the news that a package of money containing \$50,000 shipped over the Southern Pacific in care of Wells, Fargo & Company, from New Orleans, had vanished from the car in which it arrived at the Espee Station at San Antonio.

During the morning, young Mrs. Beeler rushed into the Wells, Fargo office, crying:

"What has become of my husband? He left me at the theater last night saying he would return in time for the second act. But I have not seen him since!"

On the Hunt.

An Espee detective, Jack Williams, happened to be in the express office at the time, and overheard the lamentations of the money-clerk's pretty wife. Williams had already been assigned to run down that \$50,000. Learning that Beeler had disappeared, the detective at once left the express office and proceeded to wire up and down the Espee line all the way out to El Paso and all the way down to New Orleans, warning all to look out for a young man with close-cropped hair, age twenty-four, tall, slim, black mustache, black eyes, good-looking and fairly well-educated.

Before nightfall, word came to Williams in San Antonio that Beeler had been seen in Uvalde, a town about halfway between San Antonio and Spofford. Straightway, some half a dozen officers in the employ of the Espee and Wells, Fargo, headed by Williams, rode "special" west to Uvalde.

There they found that Beeler had struck the trail into the trackless desert of South Texas, evidently bound for the Mexican border. Beeler had hired a wag-



"CHARLEY, TAKE ME TO THE SHOW, TO-NIGHT?"

on in Uvalde, from his wife's brother—the only undertaker in town. This furnished the necessary clue.

Hiring ponies and taking a supply of provisions, the sleuths rode forth on Beeler's trail following the wagon-tracks.

Down toward the Rio Grande the trail led until they found the wagon abandoned, but no Beeler, and no fifty thousand. One of the horses had been abandoned, too, Beeler evidently having mounted the other.

Again southward the trail led till the sleuths lost it entirely. Then they spread out in a big semicircle, picked up the trail, advanced to the Rio Grande and across it and into Mexico.

Through the North Mexican wilderness, and over the Santa Rosa Mountains, the sleuths kept up the pursuit. Having plenty of money, they bought fresh ponies as soon as those they rode were worn out. They employed *rurales*

(Mexican rural police) in the chase; and once when they struck a river they bought a boat outright, and then returned it to the seller, this in order to get quickly across.

After weeks of such work, suffering hardship, exposure, and starvation, Beeler was caught. He was found in a thicket in a region of Mexico where few white men had ever been. The fugitive was found fast asleep. While he still slept, the sleuths handcuffed him.

Without waiting for the formalities of extradition, Detective Williams and his comrades marched Beeler back to the Rio Grande, across into Texas, and up to San Antonio, where the young man confessed to having taken the money.

He refused, however, to tell where he had hidden it. He was sentenced to seven years on a Texas penal farm.

"My wife Anna!" Beeler cried, as he was led away to serve his sentence. "How is it I have not seen her?"

The sleuths had purposely kept the heart-broken wife away from Beeler. So now when the prisoner asked for her, for the hundredth time, Williams replied:

"Your wife is dead."

Beeler staggered, seemed on the verge of swooning when the detective added:

"And since she *is* dead the money won't be much good to you. You took the money in order to buy pretty dresses for her, didn't you? Well, she's beyond needing dresses now."

Out on the Penal Farm.

But the trick didn't work. Instead of weakening under this sweating process, the prisoner cried:

"You lie! She's alive! She's too young to die. I'll tell you nothing about the money!"

He went to the penal farm. About once a year regularly, for seven years,

either Williams or some other Espee or Wells Fargo detective would show up at the farm and endeavor to get Beeler to betray the hiding-place of the cash. But each time the detective was defeated.

In the last year of Beeler's term at the penal farm, an epidemic struck the camp and many of the convicts died. Each night the prisoners buried their own dead or prepared the bodies of departed comrades for shipment to relatives in various places.

One night, Beeler was put to work preparing a certain body for shipment to Uvalde, Texas, that being the dead convict's home. In one of the dead man's pockets, Beeler came across a little slip of paper and a small bit of lead pencil. Of a sudden, then, solely on impulse, Beeler wrote a few words addressed to the only undertaker at Uvalde—his wife's brother.

He slipped the paper into one of the dead convict's socks. To Beeler's joy, the corpse was carried out of the camp without inspection.

A few months later, Beeler was released. He hastened to San Antonio in search of his wife, only to find that she had left the city years before, saying that she was going to her brother at Uvalde.

Beeler journeyed on to Uvalde, but no one there knew of the whereabouts of

his wife. To his further dismay, he found that the undertaker, his wife's brother, had disappeared one week after receiving the corpse of the convict from the penal farm.

In frantic haste, Beeler then started for the Uvalde Station of the Espee. The station was some distance from the town and, before he reached his destination, Beeler found that he was being followed. He even recognized his follower,—Detective Anderson, of the Espee.

Instead of going to the railroad station, Beeler went back to the town. Anderson was watching him closely.

After hiding for three days in a saloon, he succeeded, in the middle of the night, in getting away unobserved, as he supposed, by the relentless bloodhound.

Beeler hastened then to the railroad station, crawled underneath the building, dug into the earth with his bare hands, and finally uttered an agonized cry.

"Come out of there, Beeler," suddenly cried a voice. "What are you doing?"

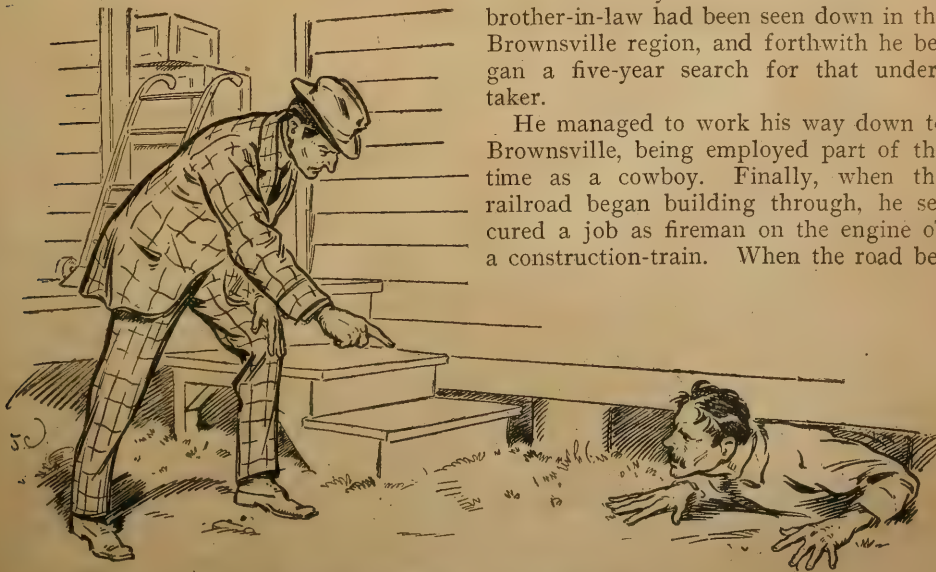
Beeler, panting and dripping with perspiration, came from under the station to confront the omnipresent Anderson.

"So that's where you hid the money, is it?" said the sleuth.

"No, it isn't," answered Beeler. "Look for yourself."

The next day Beeler learned that his brother-in-law had been seen down in the Brownsville region, and forthwith he began a five-year search for that undertaker.

He managed to work his way down to Brownsville, being employed part of the time as a cowboy. Finally, when the railroad began building through, he secured a job as fireman on the engine of a construction-train. When the road be-



"SO THAT'S WHERE YOU HID THE MONEY?"

gan running freight-trains, he was given a regular run as fireman.

Night and day he was on the lookout for his brother-in-law, and night and day he was watched by the railroad detectives until finally the day when he fainted in the cab, as described at the beginning of this story, and then traveled up to Houston and crawled to the empty shack, only to be confronted once more by Anderson.

"What did I write on that paper?"

Beeler now said to the detective, in telling his story. "I wrote down the hiding-place of the fifty thousand dollars. I knew my brother-in-law, being the only undertaker in Uvalde, would find it when he prepared the body for burial.

"I wrote that if he would go to the hiding-place and get the money, he could keep twenty-five thousand dollars as his share in payment for holding the remaining half of the money safe for me until I came for it. But he made away with the whole fifty thousand dollars. And for five years I've been searching for him, meaning to kill him on sight."

"And the hiding-place?" the detective asked. "Where was it?"

"Under the depot at Uvalde, of course.

You found me there at the moment. I discovered that the money, as well as the undertaker had disappeared. You believe me, do you not?"

"I do, Beeler," said the detective. "And now I want you to believe me, too. Your wife is dead."

"Yes, I knew it," answered Beeler. "That's what made me faint in the cab of the locomotive. Just before I fainted I overheard some passengers talking at the station. I heard one of them say:

"And Anna—Anna Beeler—she's gone, too—died of a broken heart."

"But, good-by, cap," added Beeler. "You'll leave me to die in peace?"

"Yes."

"And call off all the other detectives?"

"Yes."

As Anderson started to leave the shack, Beeler's eyes brightened, and he said:

"Say, cap, I've got just one happy thought. I keep thinking of that, just nothing but that all the time. It is—that I did it all for the woman I loved. Pretty soon, cap, I'll see her, and then—"

Anderson, the Espee's human bloodhound, had closed the shack door very softly on the dead.

In the August number, Mr. Willets will relate some exciting stories told to him by the boys of the G. A. R., south of the Potomac River.

THE FASTEST THING ON WHEELS.

THIS title now rightfully belongs to the automobile, we are told by a writer in *The Engineering Record*. Motor-driven vehicles of all kinds, including steam and electric locomotives, are now led in the race for speed-records by the rubber-tired car that has no rails at all to run on. Says the paper just named:

"It is casually worth noting that the automobile speed record, which has remained for four years at a rate of 127.6 miles per hour over the measured mile, has again been raised, this time by a gasoline automobile of 200 rated horse-power. The figure touched is 131.72 miles per hour, the measured mile being covered in 27.33 seconds.

"This puts the locomotive record of 120 miles per hour quite in the shade, and passes even the top speed obtained in the Zossen electric-locomotive tests of 1903. Thus the general speed-record passes into the hands of the automobile in spite of the fact that

it does not have the advantage of a smooth track on which to run.


"The long-threatened increase in railway speeds to sensational figures is yet far from coming to pass, and the one hundred-mile-an-hour train, seriously projected nearly twenty years ago, is still in the dim distance. The stern chase of the automobile is likely to be, as usual, a long chase. These transcendental speeds are perhaps likely to be long in coming as a matter of common transportation, but every raising of the record ought to be a stimulus toward faster trains in those cases where speed really becomes of practical importance. The mechanical possibilities are still very far ahead of practise, and the fundamental question has become merely one of commercial desirability."

The automobile that made the record referred to by *The Engineering Record* was the "Lightning Benz," driven by Barney Oldfield, at Daytona, Florida, on March 16.

BOGLIP'S CANINE PARTY.

BY C. W. BEELS.

**"Moral Suasion" Was All Right for Children,
But It Would Not Go with a Bull Terrier.**

EPTIMUS BOGLIP was a salesman by profession and a humanitarian by instinct. The first of these necessitated his presence from 9 A.M. till 5 P.M. in a big New York wholesale store, the second resulted in the shaping of a portion of the domestic policy of his New Rochelle home on what he believed to be ideal lines.

Being a man of family, he had plenty of opportunities to put his pet theory into practise, which was, that under no circumstances should a child be made to feel the shingle, the slipper, or the rod.

"Moral suasion, sir, is the only thing that a youngster needs in the way of direction or discipline," Mr. Boglip would declare to the individual who wasn't of his way of thinking. "The man who lifts his hand against a child, brutalizes himself and the helpless victim of his barbarity, at one and the same time. Spare the rod, sir, and you spare the child the suffering and humiliation which you have no right to inflict upon it."

So, mounted on his hobby, he would follow a dozen different trails of argument, all of which led to the justification of his beliefs. Whether he succeeded in convincing his auditor was a matter of which he took little account, for, like a good many people of fixed opinions, Mr. Boglip had more desire to give tongue to the latter than to convert others to his way of thinking.

Now, it wasn't that Mrs. Boglip believed that the indiscriminate infliction of physical pain on her children did them good, but she did hold that a parent had the right to keep the rod as a sort of Court of Last Resort.

She also held that the knowledge of that fact on the part of the youngsters invested the father or mother with a respect that would otherwise be lacking.

Luckily, though, the quartette of Boglip children were, as a rule, mightily well-behaved, as children go, and the occasion was rare, indeed, when the ideas of Mr. and Mrs. Boglip came into collision in regard to punishment.

This was fortunate, perhaps, for Mr. Boglip, for he was a little man who had followed the marital instincts of most little men—he married a woman who weighed a third more than he did and who towered three inches above him.

Had Mrs. B. chosen to back her beliefs with her personality, there would have been no doubt as to the outcome.

But two things militated against her enforcing her methods with her muscles. The first was that, like most big people, she was good-nature personified; the second, the Boglip dog-kennel, which calls for explanation.

The Boglips were no exception to their neighbors in the matter of dogs. Nearly every residence for miles around had a kennel.

At one end of the lawn of the Boglip home was a strip of ground enclosed by wire netting. Inside were three kennels, in one of which lived Mrs. Boglip's fat and wheezy Irish water spaniel, while another was given over to an Airedale terrier with a rather malformed right ear.

This dog had been given to Boglip by a generous friend who bred the animals and had no use for those which were not physically perfect.

The third kennel was devoted to a couple of nondescripts, the special prop-

erty and delight of the Boglip children, who always called them "mutts." Like most dogs of mixed ancestors and no pedigree, they were jolly, alert, and intelligent, much more so, indeed, than their somewhat blooded confrères.

The space in front of and around the kennels was liberal, sanded, and formed a capital exercise and romping ground for the canines. Access was obtained by a gate in the wire fence, the key to the lock whereof being in the Boglip kitchen out of reach of the Boglip youngsters.

Now, there was one remarkable and peculiar connection between the Boglip children and the Boglip dogs. Mr. Boglip was not always logical in the observance of his set views on punishment. He began to find that the children—Ephraim, Elihu, Sarah, and Ruth, whom he had lovingly named for biblical persons—were growing more unmanageable with their years.

Like all youngsters they were in mischief from morning till night, and, when father came home in the evening, mother would tell him how they had nearly driven her mad, and father, in order to get even and uphold his theories so far as possible, took a whip, hiked to the kennels and "took it out on the dogs."

They yelped blue murder, while the Boglip four looked on in delight and inwardly praised their father's method of administering punishment to them. Mrs. Boglip called him a fool and criticized his behavior, and she warned him soundly never to touch Wally, the wheezy dog.

One evening Mr. Boglip reached his home in bad humor. On this particular day, everything had gone wrong. He had missed trains going and coming, and as most people should know, this, when it happens to a commuter, is looked upon as both misfortune and disgrace.

One of his biggest Western customers hadn't shown up as per promise, and another had bought much less than usual. Mr. Boglip had also smashed a couple of valuable samples, which were charged to his commission account.

He had been "called down" by one of his chiefs in regard to his alleged failure to push a line of American goods, and, to crown it all, when in a Subway car on his way to the Grand Central Depot, a large and aggressive lady of

Gaelic extraction had spoken of him as a "half-boiled shrimp," just because he had accidentally trodden on her toes.

Mrs. Boglip, also, had had a trying day of it herself. What with the unheralded flitting of her colored help; a bedroom ceiling that, for no apparent cause whatever, had descended on clean tidies and spreads; a kitchen range which had sulked for hours and then became so furiously industrious that it reduced most of the dinner to cinders; neighbors who called at ungodly times, stayed unreasonably long, and said unkind things about people whom Mrs. Boglip liked; a dispute with the laundry over missing articles, and, lastly, the children.

The children dressed, their faces shiny with washing, were waiting in their playroom for the call to their returning pa. They were accustomed to have their supper after the grown-ups, and in the interval hatched schemes of mischief for the morrow.

Mr. Boglip entered his home with nasty, little flying pains playing over his forehead, betokening a neuralgic headache. His nerves were raw and his temper likewise, and, Mrs. Boglip as she placed the chops on the table, began to tell of the vagaries of the stove and the desertion of Jennie, the colored cook.

In his heart, Mr. Boglip felt rather glad for an outlet for his depression. Naturally, he didn't say so. He did remark, raspingly, something to the effect that if Mrs. Boglip was incapable of managing either a range or a servant, it would be cheaper for them to go boarding than to continue the farce of house-keeping.

He knew that his wife hated a boarding-house with a whole-souled hatred, and that, as a matter of fact, she was an excellent manager and housewife.

Mrs. Boglip paused in helping the chops, looked down—literally *down*—upon her small spouse, opened her mouth to speak, closed it again, and once more plunged her fork into the meat. She selected two of the best chops with elaborate care, matched each with the mealiest of potatoes and handed the plate to her husband without a word.

Mr. Boglip took the plate with a demonstration of contempt and martyrdom that didn't escape the notice or allay the

exasperation of Mrs. Boglip. But she continued to keep her lips closed. Mr. Boglip munched discontentedly for a few moments and then, after assuring himself that it wasn't on the table, demanded tomato sauce.

"There isn't any," said Mrs. Boglip, somewhat sharply. "I've already told you that it was only at the last moment that I found that the dinner which I had really cooked was spoiled, so I had to get the chops all of a hurry. Consequently, there wasn't time for tomato sauce or—or anything else."

Mr. Boglip noted with relish the lame termination of Mrs. Boglip's explanation and determined to rub it in. "Well," he began, "this finishes me. If you can't keep house better than—"

The sentence was never ended. Mrs. Boglip arose in her wrath and towering over the little man, wagged a compelling right hand at him.

"That will do, Septimus Boglip," she said. "I say that that will do. Don't you go talking about my housekeeping when those children of yours are making a laughing stock of you and me because of your fool ideas about their training. I give you fair warning, Septimus, that the next time the children need a whipping, they'll get it, and get it good from me!"

Mr. Boglip tried to interrupt, but failed, Mrs. Boglip silencing him with a gesture that seemed to imply that he simply wasn't to be heard from till she had had her say. So she went on:

"You are grumbling because for once in your life you've had to eat chops instead of roast chicken! Poor fellow, poor starved fellow, how my heart goes out to you! But as between unexpected chops and four children filled with the very old mischief—what?"

Mrs. Boglip jerked out the last word of her sentence with a force and suddenness that startled Mr. Boglip into swallowing quite a large lump of practically unchewed mutton, and he knew that he was in for an attack of indigestion. Again he tried to speak, but Mrs. Boglip prevented.

"The first thing this morning and just after you had left," continued the now thoroughly aroused wife, "Ephraim, while chasing Elihu through the front

parlor, tripped and fell against that pretty vase you gave me on my birthday. I—I—wouldn't have had that broken for anything!"

Here Mrs. Boglip sniffed deliberately, and with feminine unreasonableness, arose, walked around the table, kissed her husband on the forehead, and ignoring his attempt to explain, excuse, or dissemble, returned to her place and continued:

"Next thing, three of them managed to get little Ruth into one of the apple-trees and wouldn't take her down. She was crying as if her heart would break, the pretty dear, when I went to her help.

"And in the meantime, Sarah and Ephraim had managed to stick leaves all over the cat with that library paste you brought home the other night, and the poor frightened creature, not knowing what it was doing, ran up the parlor curtains and then jumped clean from the pole to the mantelpiece, smashing the vase that Aunt Ellen gave us last Christmas as well as two of the—"

Mr. Boglip rose suddenly, gurgled violently and reseated himself suddenly as Mrs. Boglip eyed him sternly.

"As I was saying, the cat broke two crystal ornaments on the candelabra that you value so much because somebody belonging to you brought it from England—at least you say they did—though for the life of me, I can't see why that should make it any more valuable. I'm sure that any day in the week I can buy prettier and cheaper things at any of the big stores in New York."

Mr. Boglip held up his hand in feeble protest. While he managed to change the direction he didn't interfere with the strength of the current of his wife's eloquence. Like a good many other normally quiet souls, Mrs. Boglip, once aroused, was difficult to quell.

"Then," relentlessly continued the wife, "I had but barely cleaned up the mess and cleaned off the cat, when *bang! crash!* went something—in your den!"

Mr. Boglip dropped his knife and fork, and forgetful of chops or commands, snorted sepulchrally: "What was it?"

"Well," said Mrs. Boglip after a brief pause, "I almost hate to tell you. Not that I am afraid that you will punish the children, but for your own sake."

"Go on," replied Boglip resignedly. "I s'pose the cat didn't murder the canary or try to elope with—the chops."

"I said that the noise came from your den—not from the parlor or the ice-box," answered Mrs. Boglip coldly. "Anyhow, I ran up-stairs, and there I found—"

"But you'll have another potato, won't you, Septimus?" she asked anxiously.

"Go on!" shouted Mr. Boglip, licking a pair of dry lips.

"Well," resumed Mrs. Boglip, sighing heavily, but not without certain enjoyment, "as I got near the head of the stairs, the children came out of your den giggling, Septimus, giggling, mind you. I asked them what they had been doing. 'Fishing,' explained Ephraim, 'smashing things,' added Sarah. 'Gee!' said Elihu, 'ain't it a good thing we ain't got a dad like Mr. Joplin? If we had, we'd get it good and plenty to-night.' And then all three of them laughed uproariously."

Mr. Boglip moved uneasily in his chair. "Where was Ruth all this time?" he asked, in default of something better to say.

"I'll come to that presently," said Mrs. Boglip. "Well, I went into your den and of all the messes. Your 'moral suasion' dear, hadn't stopped your children from fishing in the aquarium!"

Mr. Boglip jumped with surprise and horror. The aquarium with its swimming and crawling tenants was another of his hobbies. And the children had been taught to hold it as a sacred thing.

"Yes," resumed Mrs. Boglip with unction, "they had bent pins into fishing-hooks, had gotten thread out of my work basket and were using fish-food for bait. No wonder that the poor things—the fish I mean—had bitten freely and were—"

"What?" shouted Mr. Boglip.

"As I entered the room," replied Mrs. Boglip, "Ruth—Ruth, mind you—was holding that double-tailed goldfish that you were so proud of, trying to pull a bent pin out of his jaw."

"But that was nothing to the rest of what I saw. On the carpet were lying nearly every fish that had lived in the aquarium. It's astonishing the number of scales that'll come off one little fish and how those scales will spread and stick. It took me over an hour to—"

"Well, that's all right," broke in Mr. Boglip testily, "get back to Ruth and all the rest of it."

"As I learned later, after all the fish had been caught, some one of *your* hopefuls—"

"*Ours*," remarked Mr. Boglip.

"*Yours*," repeated Mrs. Boglip. "*Your* hopefuls thought that it would be a good thing to clear out the aquarium. They tried to lift it off the stand onto the floor. One side is smashed to atoms and the carpet of your den will have to be cleaned, and I'm much afraid that the dear little snails and lizards and pollywogs—that is as many of them as I can find—will never be themselves again."

Mr. Boglip groaned.

"But that isn't it," resumed Mrs. Boglip. "When the aquarium tilted, a good deal of the water in it hit your bookcase, and that old stamp-album of yours is soaked through and through and—"

Mr. Boglip was on his feet. The stamp-album was a much treasured relic of his boyhood.

"Send the children to me at once, Martha," he said. A gleam of hope shot over Mrs. Boglip's face at the tone and expression of her little husband.

"Are you going to punish them as they deserve?" she asked suggestively.

The query was well-meant but ill-timed. It served to remind Mr. Boglip of his theories of discipline.

"Never mind calling them down," he said, after a moment of hesitation. "I'll go up to them."

"Finish your dinner first, dear," coaxed Mrs. Boglip.

Mr. Boglip shook his head gloomily. "I've no more appetite—and I don't think the children will have any when I get through with them." With this he ascended to the play-room.

Mrs. Boglip sank in a chair. She was after all somewhat sorry for what she had started. She hoped that Boglip wouldn't chastise them too much. She hoped that he would keep his temper. They were only children, and he was a child once—and—

Mr. Boglip heard issuing from the end of the garden an agonized and wheezy yelp. She recognized the cry of Wally. This was followed by a series

of assorted and spasmodic "*ki yis!*" and she knew that once more Mr. Boglip was visiting upon the dogs vicarious vengeance bred of the misdeeds of his children.

She hastened to the scene of trouble, determined that, anyhow, Wally should receive protection.

The conversation which ensued between husband and wife was decidedly more to the point than usual. Mr. Boglip had been wrought up to sheer exasperation. Mrs. Boglip's trials of the day were crowned by the howls of Wally. A conflagration of tempers was inevitable.

Mrs. Boglip accused her husband of cowardly treatment of a "poor, dumb, unresisting creature." Mr. Boglip declared that Wally had snapped at him when he entered the enclosure. Mrs. Boglip didn't believe it. Mr. Boglip averred that he was speaking the truth and that he had kicked the spaniel in self-defense.

Mrs. Boglip wanted to know why he had gone to the kennel in the first place. Mr. Boglip responded that he had a perfect right to go where he wished in his own house and in the domains attached thereto, or words to that effect.

"But not to kick my dog!" insisted the lady.

"Yes, ma'am, to kick your dog or anybody else's dog who snaps at me!" retorted Mr. Boglip.

Mrs. Boglip eyed her small spouse for a moment in silence. Then she spoke consolingly to Wally, turned on her heel and walked toward the house.

Ten minutes later, Mr. Boglip's bad temper was somewhat evaporated. He entered the unlighted parlor, found his wife meditatively contemplating the moon through a cluster of tree-tops, the children having gone to bed.

A week elapsed since the events just recorded. The children had been behaving well and the dogs had not been visited by Boglip save in kindness. But returning to New Rochelle one evening, Mr. Boglip was greeted by his wife with tales of ill-doing on the part of the kiddies, to which was added the statement, made with earnest emphasis, that if he failed to do his duty toward them by administering the corporal punishment to which they were clearly entitled, the wife herself would set the birch a swinging.

By an unlucky coincidence, and, as before, Mr. Boglip, on this particular day, had undergone a great many things which had led to his discomfort. He was snappy and cross. He replied that Mrs. Boglip didn't know what she was talking about, and that he proposed to treat and train his children as he pleased; and what was more, he would do as he liked when he liked and where he liked around his own home! With this and a final glare at Mrs. Boglip, he stamped upstairs to where the small culprits were awaiting him.

Mrs. Boglip waited for a moment and then slipped quietly out of the room. She returned in about ten minutes, with something akin to a grim smile on her face. Above, she could still hear her little hubby lecturing his recalcitrant flock, his remarks being occasionally punctuated by a shrill protest or explanation.

Finally the talk ceased, the door opened and the youngsters descended to supper.

A little later, Mrs. Boglip heard her husband come down into the hall, rattle quietly among the sticks in the umbrella-stand, retreat into the kitchen, return and open the door which led into the garden. Then she went to the kitchen and found the key to the kennel gone. Again she smiled as grimly.

Mr. Boglip, as he made his way to the dogs through the fast falling dusk was fuming furiously. If there is one thing more than another which breeds bad temper, it is a growing conviction that one's most cherished ideals are wrong. It really did seem to Mr. Boglip as if "moral suasion" was a flat failure so far as his children were concerned. Angry with them, with himself, with Mrs. Boglip, with everybody and everything, suffering from the unreasonable irritation which arises from frayed nerves, he, as he neared the kennels, felt his gorge rise at the thought of the fat and bronchial Wally. He determined that he would wallop the brute with wholehearted joy, in spite of his wife and the whole world!

So he turned the key in the lock and entered.

The impressions made on Mr. Boglip's mentality by the immediate subsequent events are to this day of a some-

what blurred and confused nature. Violating the usual rule, neither Wally, the Airedale, nor the mutts were visible.

Shining eyes from the depths of the kennels told of the animals being at home, but of their disinclination to receive visitors on the outside.

Mr. Boglip had scarcely time to think over the queer behavior of the dogs when something big, squatty, black, emerged from the farther corner of the enclosure and growled gutturally as it swaggered toward him.

Notwithstanding the dark, Mr. Boglip, with a sensation as if his internal organs had suddenly quitted him, saw that he was facing an able-bodied bulldog whose voice and attitude told that it was contemplating mischief.

Naturally, Mr. Boglip's first impulse was to back for the door. Unfortunately for him, it closed outward with a snap-spring arrangement. Before he could open it, the dog hurled itself at him like a small cyclone. Mr. Boglip, by a bit of as neat footwork as was ever seen outside of a sixteen-foot ring, avoided the onset and put one of the kennels between him and his assailant.

But like a flash, the dog turned and pursued the fleeing legs of the little man. Mr. Boglip spun around to the other side of the kennel just in time to preserve the integrity of his calves. Then he had to reverse the motion as the dog made a counter attack.

Twice or thrice was this repeated, and then the creature halted, growled angrily and tried to jump across the kennel-roof. Mr. Boglip, scared and perspiring, felt grateful that the quarters of Wally were tall and had a sloping roof which prevented the paws of the bulldog from getting a hold.

An inspiration seized on Mr. Boglip and he yelled to the dogs in the kennels for help. The reply thereto was a chorus of barks which could be translated into apologetic mockery and even glee.

So it seemed to the beleaguered one, and the memory of the undeserved floggings which he had given the animals came back to him with painful forcefulness.

Next, Mr. Boglip howled aloud for his wife. But she answered not. Again and again he sent out shrieks for assist-

ance, the bulldog muttering an accompaniment of canine profanity and ever and anon dashing around the kennel in the direction of the Boglip legs.

Then he yelled for the children, the neighbors, for anybody to come to his help. And his appeals, loud-voiced and pathetic as they were, proved to be fruitless.

In the midst of his terror, Mr. Boglip couldn't but help thinking that it was very queer that nobody seemed to take heed to his frantic calls for aid, especially as the houses were not so distant from each other and some people or other were usually around after business hours.

In the meantime the bulldog was giving evidence of growing impatient. His growls grew more blood-curdling and his actions more alarming. He developed a nasty way of sidling around toward Mr. Boglip and then making a short swift dash that called for a tremendous amount of agility on the part of the gentleman in question so that his person might be preserved intact.

Even as he thus escaped, the dog would grind his teeth angrily and remark as to what would happen when he got a good hold of the Boglip calves.

Mr. Boglip thought that it would be a good thing to try something akin to "moral suasion" on the dog. So he began:

"Good bow-wow! Nicey bow-wow. Fine dog—"

"*G-r-r-r-r-r-r!*" said the bulldog from the other side of the kennel.

"Oh!" replied Mr. Boglip in all sincerity, "certainly if you think so. All the same, I think you are a remarkably well-developed specimen of your kind. And I do hope that—"

Here Mr. Boglip's blarney was cut short. The dog made a brilliant attempt to get at him via the kennel-roof. That it failed was another matter. But its effort gave Mr. Boglip an idea which he proceeded to put into effect.

The top of the enclosure was a stout sort of railing. The space between this railing and the top of Wally's kennel was some three feet. Mr. Boglip, when the dashes of the bulldog permitted, had taken cognizance of these facts, and had come to the conclusion that if he could once gain the kennel-roof he would have

no difficulty in jumping to the railing and then to the ground.

Outside of the enclosure he would be safe. Even as he cast about for the means and moment for his attempt to gain his freedom, he thought with gloating of the revenge that he would have on the creature who had caused him so much terror and loss of perspiration.

To stand on the other side of the wire fence armed with a sufficient whip and—'twould be an act of justice at which even his wife could not take exception.

At this instant the bulldog, tired of merely growling, made a vicious rush at Mr. Boglip. The little man, using both hands and feet, vaulted upward and, to his delight and amazement, found himself on the kennel-roof. Poising himself, he hopped over the intervening space between himself and the railing, and, the next instant, found himself on the lawn. The feat was the occasion for a volley of growls from the bulldog and a chorus of barks from the other animals.

Mr. Boglip halted not, but made for the house, determined that he would take his revenge while it was hot and handy. In his late encounter he had dropped the stick which he had taken with him to the kennels, but he had, in reserve, a big dog-whip—a cruel, business-like affair—that could be felt through the thickest hide. And when he had this in his hand he—

A sort of triumphant "yap" caused him to pause and look back. To his horror he saw the bulldog in the act of clearing the fence.

There was only one thing to be done under the circumstances and Mr. Boglip did it. He fled for the shelter of the house, the dog in hot pursuit. The kitchen-door was of the swinging order and opened inward. To it Mr. Boglip dashed, beating the animal by a scant yard or so.

Once inside, Mr. Boglip stayed not on the order of his going but got. Out of the kitchen into the hallway, from thence

into the sitting-room and back into the hall, up-stairs and down-stairs, diving into the cellar and emerging via the garden, back into the house again—shouting and cursing, while the dog jumped at him, bumping into him, all the while growling and snarling.

As he ran, Mr. Boglip ceased not his appeals to Mrs. Boglip or somebody to come to his aid. Every leap of the dog was followed by a yell from the pursued one.

Mr. Boglip had gone the circuit of the house twice and was making a final dash up-stairs. Sore and winded, he had just reached the top landing when his foot slipped and down he rolled.

The dog was upon him. It fastened its teeth in the tails of Boglip's coat, and it held on as only a bulldog can.

There he was, sprawled on the floor, his canine adversary right beside him with its jaws set and determined on the nether part of his garment.

"Help! Help! Oh, help!" he yelled. "Come quick! For Heaven's sake! He's killing me!" And these words were followed by one of those indescribable yelps that only the truly frightened can utter.

A door opened at the head of the stairs. Mrs. Boglip appeared calm and cool, the four children gathering around her. They stood on the landing and looked down at their unfortunate master.

"Come here, Towser. Come here. Good doggie," said Mrs. Boglip in the kindest, sweetest voice. Immediately the bulldog released Boglip's coat, and whining and wagging his tail ambled up-stairs and curled in a heap at Mrs. Boglip's feet, the allegory of complete docility.

"I guess that will teach you a lesson, Septimus," said the wife. "Perhaps you know enough now to keep your hands off the dogs."

If Septimus Boglip had learned a lesson nobody could have decided at that moment. He simply looked as if he had lost all power to ever speak again.

A passenger train makes the most splurge, but the freight brings the money. Keep on plodding.—Trifles from the Traffic-Manager.

HELP FOR MEN WHO HELP THEMSELVES—NUMBER 33.

(The Rogers Group. No. 4.)

THE MASTER MECHANIC.

BY ROBERT H. ROGERS.

THE annual convention of the American Railway Master Mechanics' Association will be held in Atlantic City, New Jersey, June 15-22. It is undoubtedly the most important gathering of the year to the entire mechanical department of the railroad world. None but master mechanics in active service are eligible to sit in the councils of this body, and each of the seven hundred-odd members who will attend will represent motive-power ideas prevailing over thousands of miles of track.

In view of the fact that these conferences make railroad history, a discussion of some of the problems which are sure to be brought up for consideration at the meeting is not untimely, and is apt to prove entertaining to those whose interest is with the trials and tribulations of the "captains of the rolling-stock." Mr. Rogers deals with these problems in his article.

What It Means To Be the "Boss of the Bosses." It Is Difficult for Him to Earn His Title, and When He Does, His Life Is Beset with Worries of a Superior Brand.



THE position of division master mechanic is hard to secure, because it is largely a survival of the fittest. It goes without saying that he who can write "M. M." after his name, must have been a machinist above the ordinary, or the quality of his work would never have attracted enough attention to have raised him to even a gang boss, and, certainly, he must have been a little better than the other gang leaders when the powers that be elevated him to foreman, or roundhouse foreman.

Without some distinguishing feats of

his own while in this latter capacity, to single him out from a dozen other competent foremen, he could never become a general foreman, for only the best of these, with the additional proviso that things break somewhere near right, may at last achieve the enviable grade in the service wherein the distinction may be enjoyed of "bossing bosses."

This is the plane occupied by the master mechanic, or, as time-honored shop vernacular must always have it, the "old man."

The mere fact, however, of being skilled in the trade is far from being the

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only reason for advancement. Because a man is a good foreman or even a good roundhouse foreman, which latter may be likened to a veritable oasis in the field of talent, does not imply the certainty that he will shine as a master mechanic.

While it is true that every foreman has his troubles in plenty, and not disputing that he handles them in a way from which it might well be inferred that he could handle anything, they are nevertheless not the troubles which associate with the head of things. They are composed largely of minor details which often carry with them a great deal of vexation and worry.

It is not hard to find a man in the business who can handle a myriad of nerve-destroying trivialities, but the same man will often fall down utterly, while contending with only one or two of the graver problems.

The true gage of promotion is whether or not a foreman can advance sufficiently beyond the limitations of his own field, which, although big as it may be to him, is, after all, only a unit in the organization, to assume with equal interest and charity, the role of guiding spirit to each of the many departments which compose the large terminal shops.

Training a Master Mechanic.

There are probably one thousand master mechanics in active railroad service in this country, and ninety per cent of them, at least, have come up from the ranks of the hammer, chisel, and monkey wrench. There are other foremanships in plenty from which they might have graduated, but the school of the machinist seems to stand the test of time. The writer can recall very few instances where representatives of other occupations have been chosen. Only two boiler-maker foremen, and about a dozen road foremen of engines, have made good as master mechanics, but this proportion of the total is so small as to be scarcely worthy of mention.

Some few roads have essayed the experiment of training bright young men, through special apprenticeship courses, to enter directly into these positions, but the results have been disappointing. The shop men over whom these made-to-order

master mechanics may be placed, quickly become aware of the fact that their superiors never actually worked for a living with the time-honored tools of the trade; and furthermore it is evident to them in many cases that they cannot hold on without special advice and assistance, which is never noticed in connection with the master mechanic who came up through the established routine.

For instance, it may be necessary to have an assistant master mechanic, and one or two other supernumeraries, who really carry their chief on their backs, and the men know it. It is needless to add that nothing so effectually destroys the prestige of the big boss as for it to be known that he is not resourceful.

Daily Routine.

The duties of a master mechanic vary on different railroads in minor details, but primarily they call for the adequate maintenance of all rolling stock entrusted to his care in order to insure the satisfactory handling of the traffic, and the exercise of the greatest economy consistent with the results desired.

It is necessary that he surround himself with capable heads of departments, and that he should see that these heads have men capable of filling their positions in case of emergency. His daily conference with the general foreman, and others whose presence may be necessary, maps out the work to be followed, and daily reports from, or preferably visits to, his outlying terminals enable him to keep in touch with the various conditions and to adjust any irregularities.

As the master mechanic stands at the head of all mechanical matters on his division, which is often two hundred miles long, with large main shops, many outlying points, and probably three hundred or more locomotives, he must of a necessity be practical, and broadly informed in the business.

He is obliged to render momentous decisions on points raised by foremen representing two dozen trades or occupations every day, even if there is a general foreman, boss blacksmith, foreman boiler-maker, or what not, who are charged with the direct supervision.

No matter how efficient a shop organ-

ization may be, questions are arising all the time in the shops, involving costs, and the best way to minimize the expense. In this connection he is considered an authority on the best practises in running and firing locomotives. These matters find their way eventually to the head of the plant as the court of last resort, and it would be difficult to preside in that capacity and retain the respect of this formidable body of practical men, each a master of his own work, unless there was behind the incumbent a tremendous reserve fund of experience, gained slowly and even painfully, through many years in the ranks, or in subordinate supervising capacities.

A Census of Worries.

Once in a while you will find a master mechanic who will tell you that the conditions which he has to meet are impossible, and he will firmly believe it, too, notwithstanding its evident fallacy, manifested by the fact that he does not hold the only such position in the country, and that there are other men who are getting along while combating the same problems.

The conditions are not impossible, although in a few places they may be unequal. If they were impossible the annals of the job would record a series of personal failures to make good such as have never characterized any business. The fact is, whether unequal or not, some men have their positions all their lives, through properly interpreting its requirements, and not looking for trouble until it comes to them.

On different occasions during the past few years the writer has asked ten master mechanics, with whom he was well acquainted, and who represented as many sections of the country, practically the same question:

"What feature in the duties of your position gives you the most concern; that is, what do you find to be your greatest source of trouble?"

The replies were interesting, although curiously divergent. Two said: "To get material to keep the engines going;" one, "To keep within the monthly appropriation, and hold down the costs," and another, "In keeping the men satisfied."

Four answered: "The engine failures, and what is coming to you after they happen;" another, "To suit the superintendent," and the tenth, "To keep my job."

The question was put at random, and the replies are quoted exactly as given. They embrace the entire category of what may be called the tribulations of a master mechanic; the features, in fact, which are hardest to combat, and of which any one is likely to have a vital bearing on the tenure of his job. There is no need to look further, and in the tact, ability and caliber of the man in general to meet these issues squarely lies his chances for holding on to the position which has cost the best years of his working life to attain.

If these sources of trouble were arranged in their proper order of importance they would read: first, keep the men satisfied; second, hold down the engine failures; third, suit the superintendent; fourth, watch the monthly appropriation and the supply of material; and fifth, watch the job.

This is a more clever arrangement than it looks, although it may not be considered consistent with a divisional organization, in that the superintendent is placed third on the list; but a moment's reflection will make it apparent that in keeping the men satisfied and fighting the engine failures, the master mechanic has already endeared himself to the superintendent.

The reason why the most important personal consideration, "watching the job," is placed last, is because measurable success in the first four should insure the last.

Getting Along With the Men.

A brief consideration of the five troublesome items enumerated may serve to convey a better understanding regarding the human side of the master mechanic's work, than much detail description of the actual handling of the shops. This latter is largely routine work, well looked after by competent foremen, and the results promptly tabulated for ready reference by clerks in each department.

It merely remains to glance at the summary once in a while to estimate whether

affairs in general are moving for the good or bad, but the handling of these other matters which the various master mechanics assigned as trouble-makers are a personal duty, and cannot be entrusted to any one.

Keeping the men satisfied should not properly belong in the list of master mechanics' troubles; on the other hand, it should be among the few rewards pertaining to an office which has far more thorns than roses. It is no doubt the all-potent factor in the success of any master mechanic; and it lies simply in two words—"be fair," but more strongly than these in "treat them all alike."

The time has passed long ago when the master mechanic could stand on the edge of the turntable pit and literally "cuss" the engines in and out of the house. They will arrive and depart quicker, and his mechanical delay-sheet will present a much better average, if every man's little weakness is understood and deferred to so far as consistent with the maintenance of the proper discipline.

An Exponent of Civility.

Andrew J. Cromwell, for thirty years master mechanic on the Baltimore and Ohio, and for a lengthy period previous to his death its superintendent of motive power, was the exponent of civility on the part of boss to workman.

Even when in his last-named position he never failed to say good morning to an ashpit man, or any other laborer he might meet on his way to the office, and if in walking through the shops he saw an apprentice with his lathe loafing on the slowest speed, he would merely say, "Don't you think you could make better time; Joe, by throwing that belt up a speed?" This he thought preferable to the time-honored form: "Here! boy! sling that belt up! If you were driving snails, one would get away from you." Whether it was any better or not, it made the boy feel better because his opinion had been consulted by the master mechanic, and he ran his lathe up to the normal speed from that time on.

"It is merely in the study of human nature," said Andy, on one public occasion, "where lies the secret of the much exploited and very much overdone 'he

has the knack of handling men.' Some of you may say that you can't jolly all men along, but that is not what I mean. You can treat them all alike to the best of your ability, take an interest in their affairs, whether assumed or real, and when you have become endeared to them there will never be a grievance which you cannot settle in your own little office. I lay great stress on gaining the good will of the men, as it is half of the battle."

Unconscious Good-Fellowship.

Once D. R. Killinger, who is now master mechanic on the New Haven road somewhere, while on a brief visit to South Boston, gained the good will of the largest body of railroad men in the quickest time on record, and without any premeditated move in that direction.

He had some forty or fifty engines which were taken care of at that point, although it was located on another division than his own, and being rather new on the road had their numbers typewritten in his own office, which list he pasted in the crown of his hat for ready reference before starting out.

While wandering through South Boston's grand maze of some hundred locomotives which put up there every dinner hour, it became necessary for him to look within his hat every time he passed an engine in order that it might be identified from the list as one of his own or otherwise.

This continuous hat-tipping was viewed with much complacency by the engineers, firemen, machinists, boilermakers, and wipers, who were loud in their praise of Mr. Killinger's supposed polite salutations as he made his way among them. For that matter Dave was naturally polite enough in those days to give each one a bona fide salute, but these are the facts, even if the telling has been some delayed.

Engine Troubles.

There is little humor in the second tribulation, the problem of engine failures. So much has been said and so much written on this bugbear that anything else could scarcely fail in superfluity, but, in brief, an engine failure means something which goes wrong with the

engine after being delivered by the roundhouse, and which may result in time being lost while on the road.

Engines are carefully watched by the train despatcher while with their trains, and he can tell from his sheet as they are reported by the various offices whether they are holding the schedule.

If not he will wire the conductor of the train asking the cause, although in all probability the conductor will be first on the wire advising him. These misdeeds are tabulated in the superintendent's office every day on a form which the Erie calls "1372," and the B. and O., "1004."

It makes no difference what they are called after copies have reached the general superintendent and the superintendent of motive power. They are synonymous with "please explain," "can you tell us why," etc., and all the attending evils, the bulk of which will fall on the master mechanic in the handling of an amount of correspondence which would be staggering to a layman.

Each and every engine failure must either be explained, no matter how trivial, and it requires a cool, well-balanced head to interrogate the engineer and to subsequently present the explanation on an acceptable basis to the superintendent of motive power, who, as a rule, is equally well versed, if not sharper, than the master mechanic.

Making Explanations.

Some of these problems are knotty in the extreme. For instance, two minutes are lost on a certain important run, on account of what the engineer and conductor report as "low steam." If the master mechanic should say in his explanation that it was "up to the fireman," they would probably tell him to relieve the fireman, or question his judgment in using an incompetent man.

If he should say that the blower pipe "tipped over," or the "exhaust base leaked," he is called upon to explain why he despatched the engine in a condition allowing such things to be possible, especially in view of the fact that everything is inspected daily, and the inspection made a matter of record.

If he should claim that the engineer was incompetent, or at least did not take

proper advantages of opportunities on the run in question, and discipline the runner in accordance with his ideas concerning the gravity of the offense, the engineer would probably point to his twenty or twenty-five years' successful record, and no doubt send his grievance committee after the master mechanic.

Should the latter, on the other hand, and for the sake of peace, fall back on the time-honored and time-worn "bad coal," to explain the two minutes, the superintendent of motive power, if he was on the job, and he generally is, would likely come back, asking the master mechanic to state definitely wherein the coal was bad; in other words, how much slate, sulfur, bone, ash, and other non-combustible substances figured in its composition.

The Safe Middle Course.

Explanations of engine failures truly place a man between Scylla and Charybdis, because the middle ground is restricted to a degree, and once or twice worked over, there is no more to it. Some of the explanations which desperation evolves would make a dead man turn over in his grave, to wit:

"This crosshead failed due to an old concealed defect which could not be detected in an ordinary roundhouse inspection;" another, "Owing to a high northwest wind which prevailed while the engine was being sanded, some particles were blown into the truck box, resulting in delay on the road of ten minutes from box heating;" and still another, "Pipe to auxilliary reservoir failed, causing delay of twenty-seven minutes while engineer made temporary repairs. This failure was due to pipe being short-threaded, and was a builder's defect of a concealed nature. This part had never been repaired or removed since the engine was received here."

Going Into Details.

A great many of these explanations are soundly based, but many are not so. To handle the matter intelligently an observant man will make each case an object lesson, and strengthen his organization to insure, if possible against a recurrence.

Sometimes letters will come back stating that the coal is as good as used on any other railroad for locomotives, costs just as much per ton, and that consequently in the future bad coal would no longer be accepted as an excuse.

This does not alter the fact, however, that very often the coal is bad, in the broadest acceptance of the term, and in such a case the best thing for the master mechanic to do would be to read up thoroughly on the subject of fuel, and prove his contention, if he can.

Along the lines of the coal problem, one of a master mechanic's trials, and certainly not the least, is for the rumor to go broadcast over the division that the fuel is not up to the standard; and it will require many days, if not weeks, to swing the firemen back into line. Some of his most exacting days will be spent in missionary work among the latter, preaching always from one text: "Fine coal does not necessarily mean bad coal." But a number of the firemen will always remain outside the fold to insist that so long as it has no lumps it is no good.

Some engineers are prone to resent any questions concerning any engine failure, considering them to be imputations on their ability. Patience and tact are both requisite to secure the facts.

"Why, that was only a minute!" some of them will exclaim, and they don't seem to grasp the idea that just as long a letter is required to explain a delay of a minute as one of twenty.

It should be added, however, that engineers, to a man, fight hard to keep a delay off the run slip, and this is all the more commendable in view of the fact that it is exercised irrespective of any feeling which they may have against the master mechanic or the shop. No case can be recalled by the writer in which a delay was wilfully brought about.

Satisfying the Super.

"Keeping the superintendent satisfied," may or may not be assumed as a trial to the master mechanic. It depends largely on his own attitude toward that official. The modern operation of railroading divides the entire system into a number of independent divisions, over each of which is placed a superintendent.

He is all powerful within his own territory, so much so that to all intent and purpose he is practically general manager of his own little railroad, and the master mechanic will be sorely tried if he fails to gain his good opinion on the very start.

Another Complex Situation.

The master mechanic must furnish the power from his roundhouses in the shape of locomotives to cover the regular time card, and any others at the call of the despatcher which may be required for freight or extra movement, hence he has become identified as the most important member of the division staff, and the way he measures up to the requirements of his job has a material bearing on the record which the superintendent will make while in office.

Primarily the superintendent wants his trains run on time, and, just as important, he wants power to move them when a movement is necessary. Thus is brought about another complex situation with which many master mechanics are contending every day.

The Devil and the Deep Sea.

A man could never be placed more curiously between two fires than in trying to please both the superintendent and the motive power department, especially when the freight movement is heavy. His natural inclination would be to keep peace at home, and to this end, turn the power as fast as possible. It would be easier if an engine arrives on his ashpit, with flues tight, and otherwise O. K. in its basic principle, but still reporting several little jobs, to let these latter go, and turn it straight out on the road again.

This procedure is sure to gain friends on his own division among the transportation people, but if the power runs down for lack of care in the meantime he will very likely fall into disrepute with the superintendent of motive power. On the other hand, if he holds the engine in the roundhouse, and painstakingly and thoroughly does all of the reported work, a lament may go up from the same transportation people in regard to slow movements from the roundhouse, and their

inability to furnish power for the requirements of the traffic.

This situation requires the middle ground again, and all the common sense, judgment and diplomacy which the master mechanic can work into it. Some superintendents may be what are called "seven-by-nine" men, but the large majority are "broad gage" in its fullest acceptance, and will stand by the master mechanic nobly after the freight rush is over and he has his shop full of engines for repairs.

Keeping Down the Bills.

The question of keeping within the appropriation for expenses is probably as vexatious, if not more so, than the engine failures. The approved plan of the present day is to allow each master mechanic a monthly sum on which to run his department; that is, so far as salaries and wages are concerned. If he has a principal shop, working about one thousand men, and three or four little outlying roundhouses on his division, he may be allowed forty thousand dollars to pay everybody on his roll. The amount of these appropriations is fixed by those who have an intimate personal knowledge of the territories in which they will be spent, which is well evidenced by the fact that in the majority of cases they are just sufficient to make both ends meet, and no more.

The master mechanic can pull through on his appropriation by allotting a certain daily amount to each department, with a grand daily total of one-thirtieth of what it calls for, but in order to tell just how he stands on his expenditures it is necessary that the accounts be totaled every day.

Empty Stock-Rooms.

If rush work necessitates overtime to be worked the appropriation is generally so tight that he will be in a hole on the close of that day, and must try to get it back the next. If very much in the hole, through poor management or circumstances over which he has no control, the shops must be put on shorter working hours until the balance is restored.

Scarcity of material is about on a line

with scarcity of money. The material is, of course, handled by the stores department, and the master mechanic is not directly responsible for its being on hand, although kept in his own storehouse. The monthly requisition for what is assumed to be needed is prepared by the storekeeper, who is not under the jurisdiction of the master mechanic, although it is not supposed to be forwarded for action until approved by him. The stuff seldom ever returns in the bulk indicated by the requisition or in season to forestall the embarrassing situations which must result when the supplies run out.

There is no greater trial for any man's patience than to have a bunch of orders returned to his office every day, marked "not in stock." It is always something for which the greatest need exists. As a rule, the shortage is in connection with the lighter supplies, and the extremes to which a man may be driven to counteract the situation would scarcely be credited.

A temporary remedy is often sought by the roundhouse foreman in robbing one engine for another, and when the master mechanic sanctions reluctantly this procedure he knows in his heart that the thing once started, it will never stop.

Robbing Peter to Pay Paul.

The writer worked for a road some years ago which possessed more than its quota of able-bodied requisition slashers, who performed their functions on these things after they reached the general offices. An example of their skill might be quoted in the instance of one item, which will illustrate about what befell the others.

It called for "six dozen coal scoops, or firemen's shovels," a very modest consumption when 4,500 locomotives were cared for every month, but the requisition cutter got busy with it by drawing his pen through the word "dozen," thus leaving "six coal scoops" for the purchasing agent to furnish. The six came along in due course but they didn't last long enough to get in the storehouse.

In addition to the shortage of shovels the situation was also reflected in this manner: it was not out of the accepted order of things to see an engine go out on an important passenger run with a

lantern wired in the headlight cage for want of an interior, and when one would arrive on the asphalt a gang of men would be waiting to remove the grease plugs, coupler knuckles, headlight reflector, and occasionally the air hose, with which to get another engine in service. Even the fire hooks and shaker bars ran "first in, first out," and it is recalled that they were so hard pressed at times that the tanks and reverse lever latches were put in the chain gang.

That storehouse also ran out of nuts. They had plenty, of course, for two and one-half or three inch bolts, which would have been quite acceptable in some marine engine works, but none of the common sizes, seven-eighths, or inch, which locomotives eat up in profusion.

In consequence, a machinist, at thirty cents an hour, would spend half a day rooting in the scrap pile for old, discarded nuts, and the other half tapping the rust from the threads of the few he was lucky enough to find.

The entire situation was distressing in the extreme, but in all fairness to the general executive handling of railroads this was an exceptional case. It is merely mentioned as illustrative of what a master mechanic may have to contend with, and what he must know how to meet if it arises, otherwise he cannot produce any locomotives to haul the trains.

How the Tools Get Mixed.

The majority of roundhouses and terminal points are short of locomotive tool equipment; that is, oil cans, headlight chimnies, lantern globes, coal picks, fire hooks, and other items of a similar ilk. They all have a system of tool inspection and accounting beyond criticism, but they insist that it is an almost impossible task to live up to the requirements.

The situation is held within reasonable bounds when the engines are assigned to regular crews who have a personal interest in looking after the equipment, but it is practically hopeless when the engines run in the chain gang, by any crew whose turn is "first out."

The engineers do not stop short of the master mechanic's office in filing complaints regarding shortage along this particular line:

"Mr. So-and-So, I have a hammer and a broken chisel on my engine, and no monkey wrench. The tool boy says he can't fit me out any better. I will go out if you say so, but I will not be responsible for want of tools to get into clear with if the engine breaks down."

What will the master mechanic do in that case, with the matter put squarely up to him? Time may be pressing, and perhaps even then the engineer should be on his train. He will try the storehouse, and they have no monkey wrenches, the tool boy could have told him that. In the last extremity, and in order to prevent a terminal delay, he will order a monkey wrench taken off an engine which is not going out, and away goes the tool system.

Holding Down the Job.

The problem based on the trial of "keeping the job" is frequently influenced by the often groundless fear of losing it. The surest way to lose it is to be worrying all the time over such a possibility. Many a poor fellow, when he feels that he is weakening, and he is entitled to sincere sympathy, has been known to sit in his office "like patience on a monument, smiling at grief," meanwhile waiting for the lightning to strike. If he had gone out and hustled around the shops a bit he would have felt better anyhow, and maybe the bolt would have missed him after all.

There is, however, room for worry over this particular feature, especially when things are not going very good. The experience of more than one master mechanic can attest that it is harder to keep the job under certain environment than it is to get it, and to get it implies just about twenty-five years' hard work in the subordinate grades.

Men have worked faithfully throughout that long period in the quest of this particular position, only to lose it shortly after acquisition in the drop of a hat. The causes which bring about retirement in some instances are too subtle to define.

The majority, no doubt, are soundly based on facts satisfying to the management, but some of them savor somewhat of injustice, which is not ordinarily associated with railroads.

Although the position, unfortunately,

is of a tenure extremely precarious, there need be no alarm if vigilance is never relaxed over the smallest item which may make trouble. If a man puts in his best ticks the first year, makes a material reduction in the number of engine failures, and maintains a reasonably better showing than his predecessor, he has established a most convenient reference table for guidance in the future.

In those twelve months the master mechanic will have broken-down turntables, shortage of help, lack of engines, to say nothing of material, request from every man under his jurisdiction for an increase, clamor from each outlying point for an additional man or so, and enough letters requesting explanations to put a border on the universe; but when he is over with it all, and still has his job, with maybe a little raise in pay, he can dismiss the getting through bugaboo, and look the future in the face with a stouter heart.

If it is his initial experience in the position, enthusiasm will not wane for a long time, but when it does it would be better to forestall the inevitable by withdrawing.

It may be, after all, that enthusiasm, rightly directed, is the chief requisite for success in this trying position. Many master mechanics will never mention these trials and tribulations which this article has, in a measure, dissected. They find a positive joy in fighting trouble because they know that they can beat it, and they have only to glance back over their careers to realize that scarcely a situation could arise which has not confronted them before and been effectually disposed of.

There is an inborn spirit of optimism in these successful men which rises supreme above all petty grief. When it is present the thought is untenable that they are special targets for adversity, and they are ready to admit that the fellow on the next division may have his troubles, too.

WHY THE CHIEF CLERK LAUGHED.

THE chief clerk leaned back and emitted a prolonged laugh. "Tell us about it," said the rate clerk and the stenographer in unison.

"Here is one that has the agent that was canned out at the coal-mine backed off the board," replied the chief clerk as he read: MR. B. B. BLANK, D., F. and P. A. Ry., MONTANA:

DEAR SIR—Attached hereto please find statement of emigrant movables received at this station and star stations for the months of February and March.

I regret very much in overlooking this report and likewise do not care to complain of the reasons as it only reflects on the agent, and he is at once put down as a chronic kicker. But I beg to advise that I have had four or five green operators to break in, and, besides, having all the work to do myself, I have to check over what they do.

I am reminded at this station of a passage of Scripture where the Saviour asked for bread and they gave Him a stone.

I asked for a warehouseman and they gave me a beautiful eighteen-year-old girl to tickle the telephone. This lets me handle the U. S. mail; in fact everything that is to do, as one who wears petticoats is not adapted to the work incumbent to a railway station. Of course, if she was a telegraph-operator and understood station work, I could get along, but I haven't the time to teach her, and as I have been doing this kindergarten stunt for some time, I find my patience considerably worried.

Now, if you will kindly put in a word to the superintendent for me, I may be enabled to get a man in place of this fair damsel. I can use him for a warehouseman as well as a phoneite. Yours truly,

AGENT.

SWIFT BUSINESS.

A WESTERN railroad recently received the following letter:

DEAR SIR—In answer to yours of the 26th of June, I have delayed this letter on account of my barber-shop burning out and I moved to Decatur, Illinois.

Inclosed find B. of Laddin. I ordered the carriage 11 month ago. Swift Business. I hope there are no more delay

on your part. The baby we ordered the go cart for has grown out of it. But it will come in handy anyway, for we have an other baby boy 12 lbs. I am sorry but cant help it. We also wrote the Tobacco Co. about it. Hoping we may get it in a few days.


Ship to ———,

Decatur, Ills.

WALWORTH, THE SNOB.

BY ROBERT T. CREEL.

A Battle Royal That Found the Mettle of a Victim of Too Much Higher Education.

AY, Percy, would yē mind throw-in' a little coal in the bloom-in' fire-box? Ye know, she won't make steam unless she's kept warm," said Snub Hicks, gazing mildly at his new fireman.

Adrian Walworth, Jr., hastened the departure of a drop of perspiration that hung on his chin, closed the fire-door, and felt for his monocle, the better to perceive the man who had made such a strange request.

For it was strange, in view of the fact that Adrian Walworth, Jr., had been shoveling coal steadily for the past six hours, though with small results in the shape of steam. Having forgotten his precious glass, he was forced to make such observations as he could with the naked eye.

"Ah—my name is *Mister* Walworth," he stated resentfully. It seemed that this person must be kept in his place. His mocking speech was not to be tolerated.

"Not while you're tallow-pot on this smoke-wagon," quoth Hicks. "All you got to do is keep 'er hot. I'll tend to the sociabilities."

"My word," murmured the young man, returning to his work.

This thing of learning the business from the ground up, he reflected, was not without its embarrassments.

Here was he, the son of the vice-president of the road, recently returned from an English college, subordinate to a common engineer. This trying position gave rise to another problem. How should he address his task-master?

Due respect for his own social stand-

ing prevented the use of the word "mister;" nor could he call the man Snub. He had begun by calling him "my good man," but when the worthy Hicks jerked open the throttle, and he saw the greater part of his fire pass out the smokestack, he rejected the term as unsuitable.

With some disgust, the elder Walworth had noted the affected mannerisms of his newly graduated son, and, after some deliberation, he decided that it was out of the question to start the boy on his career until he had outgrown some of his snobbishness.

For this purpose he knew there was nothing better than a period of service as a fireman, feeling assured that whatever qualities of manhood were in the boy's make-up would be brought to the surface as in no other way. So it was that, being spared the preliminary labor of the roundhouse, the young man had been called for his first trip.

Following a confidential talk on the subject with Adrian's father, Hicks firmly resolved to do his duty toward the new fireman, or "stoker," as Walworth, Jr., was pleased to call himself.

As his train consisted of a string of empties, the engineer feared that the young man might find the work too easy, so from the start he had systematically "cleaned" the fire when the gage began to show a fairly good pressure. During one of the infrequent breathing intervals, Adrian, Jr., climbed wearily to his seat-box.

"Gettin' pretty cold in here, Percy," yelled Hicks suggestively. The embryo fireman started to step down, but on raising his leg the muscle suddenly

cramped, as tired muscles will. A second later Hicks noted his strained attitude.

"What d'you think you are — a chicken?" he asked gruffly. "Put down your leg, an' get up a little steam."

"I believe I've a bally cramp, old chap. Ah, it's all right now."

No sooner was one leg released than the other was drawn up in the same way. Perhaps it was a touch of pity that made the engineer take the shovel.

"Get up on the tank an' shove down some coal, while I put in a fire," he commanded. "We got to be movin' along."

With a sigh of relief, Walworth, Jr., dragged his tired feet upon the tender and did as he was bidden. Although his determination to do his work well had carried him thus far without serious trouble, he was much too sleepy to resist the subtle warmth of the morning sun and the rocking motion of the train.

He sat down. As some philosopher has observed, one thing always leads to another. In this instance, repose led to slumber. It also led Hicks to profanity.

Shovel in hand, he advanced on the erring fireman, who slept serenely, unconscious of impending disaster. Deliberately setting himself, Hicks swung the shovel, bringing it down forcefully on the back of the sleeper.

It was as if the secret spring of life had been touched. The long form of Walworth, Jr., sprang upright, his lips emitting a word that sounded like "mercy!"

"I must have fallen asleep!" he exclaimed, rubbing his eyes.

The two resumed their places in the cab, and neither spoke until they rounded the curve that brought them in sight of Meadow Siding. Here were waiting a gang of Italian laborers who had been employed on some construction work at the place. Seeing the train, the workmen made a rush for a flat car that was standing with two box cars on the side track, the whole crew clambering aboard.

"Wonder what's doin'?" said Hicks. "Them dagoes seem to be excited."

While they were taking water the head brakeman came running up, followed by the station-agent.

"We got orders to pick up them three

cars, Snub, an' that bunch of dagoes say they're goin' to stay on till they get to Ardmore. What'll we do about it?" questioned the brakeman.

"Reckon we could put 'em off?"

"Nope. There's too many of 'em. All got knives."

"Think it'd be all right to leave that car here?" queried Hicks, turning to the agent.

"You might," returned the other; "I guess there won't be any trouble about it."

Uncoupling the engine, they switched back to the rear of the train, which they pushed ahead for some distance, leaving a clear track for their maneuvers. The car chosen by the Italians was in front of the other two; therefore, Hicks deemed it best to approach them from the rear.

It was the work of but a few minutes to haul them out on the main line; then, with suddenly accelerated speed, to shunt the flat car back on the siding, and, while the Italians were yet trying to stop it, push the two box cars triumphantly toward the waiting train.

These moves had been watched with keen delight by young Walworth, who so far forgot his dignity as to wave a grimy hand at the disgruntled laborers as they passed. No sooner was the gesture made than he heard a noise different from that ordinarily made by the engine, whereupon Hicks cursed loudly and closed the throttle.

"We're stuck for a few minutes, kid," he said, with an apprehensive glance at the Italians, who, seeing his predicament, were swarming along in pursuit, like angry bees. "You try to stand 'em off till I see if I can get 'er tinkered up."

It was a nervous fireman that watched the leaders of the rabble gain on the slowly moving engine. Yet in his bearing there was nothing of fear. It was rather the excitement of the thoroughbred before going into action.

Yelling to his followers, the foremost attacker mounted the first step; then, stopping the full swing of Adrian's heavy shoe with his chin, he bit off a word together with a portion of his tongue and plunged over backward so precipitately that it must have surprised even himself.

After breaking the force of his fall with the back of his head, he experienced no difficulty in alighting, and lay quiet

stomach. At that moment Hicks, having completed his work and opened the throttle, turned his attention to the fight.

One of the Italians had taken advantage of the momentary diversion to gain a foothold on the gangway, and was aiming a blow at the fireman's back with his stiletto. Seeing this, the engineer made haste to smite him on the head with his trusty wrench, performing the feat in much the same way one would drive a nail.



STOPPING THE FULL SWING OF ADRIAN'S HEAVY SHOE WITH HIS CHIN.

thereafter, as if satisfied with the day's work.

In the meantime, his companions pressed onward in such numbers that the fireman, using feet and shovel alternately, found it no easy task to keep the narrow gangway clear. Hicks, working madly, shouted encouragement:

"That's the dope. You got 'em fuddled, Percy. Keep after 'em."

"Take that, you beggar!" grunted Adrian, striking valiantly at a man who had slashed the leg of his overalls.

"Look out! There's one comin' over the tank!" cried Hicks.

When the newcomer, stumbling and sliding on the coal, lurched toward him, Adrian shifted the shovel to his left hand and drove his gloved right into the man's

The man crumpled down in a heap, thus ending the struggle, the others being already left behind by the swiftly moving engine.

Safely out of danger, the engineer and his fireman stood looking calmly at each other.

If their faces were expressive of their thoughts, it was evident that each felt himself guilty of misjudging the other.

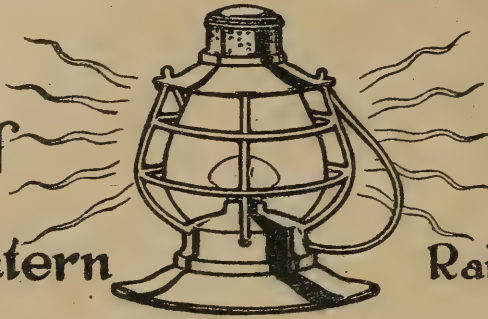
"I owe you something for that, and, believe me, I am sincerely grateful, Mr. Hicks," said the young man, with respectful admiration in his voice.

"Don't mention it. You're the goods, an' I'm glad to have you on the engine, Mr. Walworth," replied the older man warmly.

"Here's my hand," said Walworth.

WHAT'S THE ANSWER ?

By the
Light of
the Lantern



Questions
Answered
for
Railroad Men

ASK US!

WE like to be as useful to our readers as we can; but, because of the great popularity of this department, we are forced to impose certain restrictions. In future, we shall be compelled to limit its scope to the answering of questions of an informative, technical, or historical nature only. Letters concerning positions **WILL NOT** be answered in this department. All letters should be signed with the full name of the writer, as an indication of his good faith. We will print only his initials.

PLEASE state the length of a circle formed by a one-degree curve, and if the distance around a two-degree curve would be one-half of the one-degree curve.—H. E., San Bernardino, California.

The radius of a one-degree curve is 5,730 feet, or a diameter of 11,430 feet; the radius of a two-degree curve is 2,865 feet, or a diameter of 5,730 feet; therefore, a curve of one degree is twice the size of a two-degree curve.

A FIFTY-FOOT car is to be weighed on a forty-foot scale, thus necessitating the weighing of each end separately. To obtain the correct weight of the car is it essential that each truck be placed the same distance from end of scale? Under the same circumstances what would be the result if scale was located on an incline?—T. P. D., Dallas, Texas.

The fifty-foot car should be weighed by placing each truck as near as possible in the center of the scale, and the sum of the two weights will be the weight of the car within a few pounds. We have often weighed main connecting-rods for locomotives, one end at a time, and had them come out within half a pound of the true weight; but, in the in-

stance of your problem, care should be taken that on the second weighing the end of the car off the scale should be as level as in the first weighing. You will often notice that the ground on both ends of the scale either runs up or down hill, which would make an irregularity. Weighing anything on an inclined scale is never reliable. A scale should be absolutely level.

M. B., Baltimore, Maryland.—The number of locomotives built during the past year is little greater than the 1908 figures, in spite of the improvement in general business conditions during 1909. However, it has really been but a few months since the railways came into the market with substantial inquiries, and deliveries on orders placed at the beginning of this movement did not begin until last fall. Returns from fourteen locomotive builders in the United States and Canada (estimating the output of two small plants), show a total of 2,887 engines built, of a total of 3,233 ordered. Of the 2,653 built in the United States, 2,362 were for domestic use and 291 for export. These figures include 16 electric and 119 compound locomotives. The Canadian engines, 234, were

all for domestic service. Since 1893, the banner year in this industry was 1907, with 7,362 locomotives, and the poorest year was 1894, with but 695 engines.

TO decide a bet, please say if it is the law in Arkansas that no one-engine train shall consist of more than twenty-six cars. A claims that if there are twenty-seven or more cars, the law compels the use of two engines. B claims there is no such law. Who is right?—C. L. B., Creede, Colorado.

Arkansas has no law providing that trains of more than twenty-six cars must have two engines. In fact, no law whatsoever along such lines. There is a law in that State providing that trains of twenty-five cars or more must have three brakemen, but this does not affect lines under fifty miles in length.

J. H. R., Rochester, New York.—A lengthy search fails to bring to light any data regarding the "R. and H." Railroad in New York State. After the careful examination of various records which we have made to locate this road we are inclined to the opinion that it never existed, or if it did, it was in the nature of a private enterprise of exceedingly limited scope. You mention the probable length of the road as three miles. Therefore, it would seem that for this to be put out of business on account of a strike of trainmen and operators would be a joke. One crew and one operator, or no operator at all, should suffice to run it, if a junk line.

WHAT is generally supposed to be the best locomotive valve gear for very fast speed, such as Philadelphia and Reading trains, or Twentieth Century Limited?

(2) What kind of engines are used on above trains, also Atlantic Coast Line? Where were they built? What is diameter of driving-wheels and what system of air-brake is in use? Are they piston or slide valve, superheater or compound engines?

(3) Is the Baker-Pilliod valve gear supposed to be better than the Walschaert?

(4) Describe the best method of laying off shoes and wedges on an engine so that the wheels will tram square with the engine.

(5) What is the best system of laying off main driving axle for eccentric key-ways?

(6) What is the correct way to have pressure-plate on steam-chest cover lined up with washers when there has been new copper gaskets applied to steam-chest and cover?

(7) Are there any engines in this country with Joy valve-gear, or with a superheater in the fire-box?—T. J. M.

(1) With everything in proper condition and friction reduced to a minimum, we see little to choose from in this regard between any of the various gears. The fastest mile ever run by a steam locomotive was made in 32 seconds by the famous 999, equipped with Stephenson link motion and balanced slide-valve. The Walschaert motion is more accessible to repairs and inspection than the other, but the distribution of steam is no better, as is clearly shown by an analysis and comparison of indicator cards taken under the same conditions with each motion.

(2) They are running Pacific, or 4-6-2, engines on the "Century" at this writing. The Philadelphia and Reading has made most of its famous runs on the Atlantic City division with the Atlantic, or 4-4-2 type, and on the Atlantic Coast Line ten-wheel, or 4-6-0 engines, were in use up to a very recent date. A good many of these things depend on the personal ideas of the various motive-power management, and there is no hard and fast rule for any of them.

(3) Its advertisement reads in part as follows: "Engines so equipped will pull a greater tonnage with less fuel and water, and make the same time as engines equipped with any other gear." We never had any practical experience with this motion, and know very little about it, except that engineers with whom we have talked who are running it say that it is very serviceable and economical.

(4) It is quite hard to outline this elaborate operation in detail within this space, and more so when we are unaware how much real knowledge you have of the subject. The best way, and, really, the only way, is to get the centers of the main pedestals, which can be readily done from the center of the exhaust port in the cylinders, and use this point as the working basis. After you have secured the center of the pedestals mentioned, and squared them across the frames, simply work each way from that pedestal. It is impossible to go very far wrong in this job if ordinary care is used, but without the exercise of this care, grave complications will ensue, such as worn brasses and knuckle-pins, cut driving-tire flanges, and a poor riding engine.

(5) The best system is to put the wheels under the engine with the eccentrics fastened temporarily and go through the entire operation of valve setting. When complete, scribe the key-ways off in the axle and cut them. By following this plan you will know to a nicety what you have. If, however, it is considered absolutely necessary to cut the key-ways before the wheels go under it can be done, but the liability for off-set eccentric keys is always in evidence following the oper-

ation. If an indirect-motion engine, simply place the main wheels with the crank-pin on the exact forward center and advance the forward motion eccentric toward the pin the exact sum of the lap of the slide-valve and the lead desired.

This can be done quite readily by means of a heavy butt steel square placed on a board under the eccentric, after the right angle position to the crank-pin of the latter has been ascertained. Seven-eighths outside lap and one-eighth inch lead would be a progressive movement of one inch on the board for the square butt. The back motion eccentric should be set as far below the pin as the forward is above. There are some very clever ideas in vogue for determining the position of eccentrics without valve-setting as a preliminary, and the writer has practised them all—but, in the long run, it will be found advisable to proceed as first indicated in this answer.

The eccentrics are so heavy these days, and so liable to commence working at an early date, that anything like a "stepped key" is a grievous fault, and a "stepped key" is quite likely in any plan other than honest valve-setting.

(6) If the steam-chest has new or annealed copper joints the general practise is to allow one-sixteenth inch for the compression of the copper. When the cover is finally bolted down there should be no less than three-thirty-seconds of an inch between the pressure-plate and the top of the valve.

(7) Don't know of any Joy valve-gear in this country, and no engines in the world with superheaters in the fire-box.

L. E. D., Gastonia, North Carolina.—The standard length of a rail is thirty feet, but they have been rolled much longer than that. We believe that at one time experiments were made on the Pennsylvania with rails even sixty feet long. There are few now above thirty feet used anywhere.

TAKE two locomotives of some given type and give each 1,000 tons to haul and 100 miles to run. If one of the engines was taking steam eight inches of its stroke, and the other six inches, what would be the difference in coal and water, and which would use the least?—O. A. D., Sedalia, Missouri.

One of these engines is using two inches less steam than the other for each one-half turn of the wheels, or a total saving of eight inches reckoning both sides of the engine, in each revolution. Necessarily it will use much less water and fuel than the one running in the eight-inch cut-off, but just how

much we are unprepared to say, as your question does not embody sufficient data for even a surmise. It would, in fact, require an elaborate indicator test to arrive at the exact figures. However, roughly speaking, the saving should be at least two tons of coal and, maybe, 2,000 gallons of water.

C. W. F., Mullan, Idaho.—The tractive power of a locomotive multiplied by the speed in miles per hour, divided by 375, gives the horse-power.

B. E. S., Pierce City, Missouri.—There are no division superintendents on the Alaska Central Railroad at present. J. R. Van Cleve is the master mechanic. Address: Seward, Alaska.

S. K. C., Davisville, West Virginia.—If you will send a more detailed description of your proposed valve-motion we will be pleased to advise concerning its merits. Any new idea tending to further eliminate parts will always be viewed with favor by railway motive-power management. In regard to the duplex air-pump, you were not sufficiently explicit in indicating to just what ports in the cylinders you refer. The air-cylinders are compounded, *i.e.*, the large cylinder draws in air at atmospheric pressure, compresses it to about one-half the required pressure, and exhausts it into the small or high-pressure air-cylinder, where it is further compressed to the required reservoir pressure and exhausted into the main reservoir. The steam-cylinders are not compounded.

WHERE can a standard railroad book of rules, signals, etc., be obtained?
(2) Please describe the Walschaert valve-gear, with a diagram.

(3) How many types of locomotives are there, with their names?

(4) What is the fastest locomotive, what make, and on what road?—L. O. S., Topeka, Kansas.

(1) Apply to *Railway and Locomotive Engineering*, 136 Liberty Street, New York City, and a list will be sent you from which a selection can be made. You might also address the *Railroad Age-Gazette*, New York City.

(2) The Walschaert valve-gear differs from the ordinary link motion in having only one eccentric-rod, in altering the position or travel of the valve by moving the end of a bar attached to the end of the valve-rod up and down in the link, without moving

the link, and in having the valve-rod also attached to a lever that derives its motion from the cross-head.

This last detail determines the lap and lead of the valve and gives them a fixed value; whereas, the ordinary link motion gives a variable lap and lead, affected by the valve travel. The Welschaert gear derives its motion from an eccentric crank, or return crank, on the main crank-pin.

The eccentric-rod is secured to one end of the link, which is pivoted in the center on a pin held by a bracket bolted to the guide-yoke. The link-block is secured to a radius arm or bar, one end of which is attached to the end of the valve-rod and the other end to the lifting arm of the reverse shaft. The motion imparted to the valve by the cross-head connection is small, as the cross-head arm and union link are attached to the lower end of the combining or combination lever, while the radius arm and valve-rod are connected close to the upper end, thus imparting only a slight motion to the valve-rod.

For large locomotives, Walschaert's gear is now extensively used, because it has lighter moving parts, and these parts are more accessible for inspection and repair than those of the common form of link motion. We cannot furnish a drawing of this motion. Write to either of the firms mentioned in reply to your first question.

[An article describing at length the Walschaert valve-gear, its inventor, and its application to locomotives is being prepared for an early number of *THE RAILROAD MAN'S MAGAZINE*.—THE EDITOR.]

(3) The following represents the types of locomotives as enumerated in Whyte's system of locomotives classification which is generally in vogue: Four-wheel switcher, 0-4-0; 4-coupled and trailing, 0-4-2; Forney 4-coupled, 0-4-4; Forney 4-coupled, 0-4-6; 6-wheel switcher, 0-6-0; 6-coupled and trailing, 0-6-2; Forney 6-coupled, 0-6-4; Forney 6-coupled, 0-6-6; 8-wheel switcher, 0-8-0; 8-coupled and trailing, 0-8-2; 10-wheel switcher, 0-10-0; 8-wheel articulated, 0-4-4-0; 12-wheel articulated, 0-6-6-0; 16-wheel articulated, 0-8-8-0; 4-coupled, 2-4-0; Columbia, 2-4-2; 4-coupled double ender, 2-4-4; 4-coupled double-ender, 2-4-6; mogul, 2-6-0; prairie, 2-6-2; 6-coupled double-ender, 2-6-4; 6-coupled double-ender, 2-6-6; consolidation, 2-8-0; Mikado, 2-8-2; 8-coupled double-ender, 2-8-4; decapod, 2-10-0; 10-coupled double-ender, 2-10-2; centipede, 2-12-2; 8-wheel American, 4-4-0; Atlantic, 4-4-2; 4-coupled double-ender, 4-4-4; 4-coupled double-ender, 4-4-6; 10-wheel, 4-6-0; Pacific, 4-6-2; 6-coupled double-ender, 4-6-4; 6-coupled double-ender, 4-6-6; 12-wheel, 4-8-0; mastadon, 4-10-0.

The figures following the names in each of the above definitions, are intended to illustrate the wheel arrangement.

For example: the 4-6-2, or Pacific type. From the figures we gather that it has a four-wheel engine truck, six connected drivers, and a two-wheel trailer. The hyphen between the figures indicates that each section of the wheel arrangement is an independent unit. This is conceded to be the cleverest arrangement yet devised to describe a locomotive in the smallest space. Very little practise is required to become thoroughly familiar with its intent.

(4) It is very hard to pick out the "fastest" locomotive. All modern passenger power is fast enough if not overloaded, and nothing but an exhaustive test would indicate the survival of the fittest. However, the fastest passenger-train running regularly in this country is probably the Twentieth Century Limited, of the New York Central lines. This train is run, at present, by a Pacific, 4-6-2 engine, one of which is numbered 3565. It is equipped with Walschaert valve-gear, and weighs, in working order, 266,000 pounds.

With one exception, one of the same type built for the Pennsylvania, this is the heaviest passenger locomotive ever built of this type, although there is an articulated on the Santa Fe which exceeds the weight of either.

J. G. B., N. S. S., "Idaho."—The mechanical department of the Florida East Coast Railway is constituted as follows: G. A. Miller, superintendent of motive power; C. D. Vanaman, master mechanic, and W. L. Singleton, master car builder. Address of all St. Augustine, Florida.

D. F. M., Brennerton, Washington.—Our records indicate that N. M. Maine is master mechanic at Miles City, on the Chicago, Milwaukee and Puget Sound Railway, but some changes have been made recently and it may be possible that he has been transferred or promoted.

MUST a man fire a freight-train before he can fire a passenger?

(2) Must engineers run freight before running passenger?

(3) Where do all the engineers go—as a fireman is promoted after five years?

(4) If an engineer is discharged can he get a position as engineer again without firing?—H. E. B., Streator, Illinois.

(1) It is practically the universal rule, and, independent of this consideration, a new man would have small chance of secur-

ing a passenger job from the fact that they are considered better jobs through the shorter hours, and are bid off by the older men when they become vacant.

(2) Always.

(3) There is no hard-and-fast rule governing a fireman's promotion. Some men fire ten years, or even longer. Engineers retire in a higher ratio than might be imagined through the age limit, which is now practically universal on all roads.

(4) His chances are very poor. It is doubtful if he could secure employment again as engineer in this country, but this would, of course, be somewhat influenced by a consideration of the offense which resulted in his dismissal.

W. W. W., S. M.—There is no superintendent of motive power or master mechanic on the Grand Trunk Pacific in the territory which you mention. William Gell is master mechanic, and George W. Robb, assistant master mechanic, both at Rivers, Manitoba. B. B. Kelliher, chief engineer, and H. A. Woods, assistant chief engineer, are located at Montreal, Quebec.

M. C. H., High Point, Texas.—The most popular engine in freight service on the two roads which you mention in Iowa, is the 2-8-0 type. We have no statistics on the largest number of wide fire-boxes which they run in that service, and cannot pass on the comparative merits of the roads.

D. OES the Santa Fe use coal for fuel extensively on any of its divisions in New Mexico or Arizona?

(2) What salary does a road foreman of engines draw?

(3) Does an engineer generally receive more pay than a conductor?

(4) Which is the hardest on the fireman, an engine with a wide or a narrow fire-box, or with large or small drivers?

(5) Is an average size Pacific type engine harder to fire than an average size Atlantic type?—C. V. McM., Kansas City.

(1) They were using coal east of Winslow and oil west, over the desert, but we cannot speak definitely at this time.

(2) From \$125 to \$150 per month, plus his expenses while away from his home station on business.

(3) As a rule, yes.

(4) There is no real difference. "Hard" is dependent on the skill of the man and the requirements of the service. More work may be required to keep the grate covered in an extended fire-box, but this is well compensated for in the superior steaming quali-

ties which this construction presents over the long and narrow fire-box.

(5) It would depend, of course, on the service which the engines were in. A good fireman can fire anything.

G. C. A., Malvern, Iowa.—The only instance of which we have been advised where operators are carried on trains is where trains are electric lighted, and the electrician in charge is competent to act as an operator. We cannot find any record where they are carried in the capacity of operator, solely for that work.

H. OW many roads west of the river have installed the telephone for despatching trains? Please give their names, mileage, and the salaries paid chief dispatchers.—F. E. H., Fort Wayne, Indiana.

No roads east or west of the Mississippi River have made a complete installation of the telephone system. A recent compilation shows five per cent of the total trunk-line mileage of this country to be operated by telephonic train despatching circuits, but every road upon which it was then in use contemplated a further extension.

In the territory to which you have particular reference, it will be found in part on the Chicago, Burlington and Quincy between Aurora and Mendota, 46 miles; Aurora and Chicago, 37 miles, and Aurora and Savannah, 108 miles.

The following Western roads are making extended applications and, in time, expect to operate by telephone exclusively: Illinois Central, Canadian Pacific, Chicago, Milwaukee and St. Paul, and Chicago and Northwestern.

The Michigan Central, Union Pacific, and Santa Fe have been making extensive experiments and may install such systems. As we have frequently stated in this department, the innovation has implied absolutely no change in the previous compensation given dispatchers and operators. We are unable to say exactly what a dispatcher's pay is on the above roads, but, in all probability, it will approximate \$150 a month.

T. S. G., Tyrone, Pennsylvania.—There appears to be somewhat of stagnation in railroad building in the Far Southwest at the present writing, and we do not find any activity in new construction other than that with which you are familiar. At all events, on any new road the mechanical department is about the last to be organized, as in the construction work the locomotives handling the same are provided by the contractors and run by men on his pay-roll.

STEALING AN ARMORED TRAIN.

BY FREDERICK J. LIESMANN.

An Attempted Hold-up Brings Back Pleasant Memories of Revolutionary Days on the Island of Cuba.

I CLEARLY remember that I had just glanced over John Parker's big irregular scrawl: "To hors shoing—\$14.00," when I heard a faint, *click—click!* and directly afterward the voice—thick, guttural, and, it seemed to me, just a bit tremulous:

"Hold up your hands!"

That and the quick rustle of Reese's newspaper as we both looked up.

The devil—I knew him by his horns and long pointed red face—was leaning in the big office-window, his elbow steadied on the counter that ran along the grating. In his hand was a large revolver—the muzzle was scarcely a foot from the superintendent's head.

Scoville, his pen poised in air, glanced at his satanic majesty with remarkable indifference.

"Speaking to me?" he inquired.

"Y-yes, I'm speaking to *you!*"

"Just a minute, please," said Scoville, and calmly resumed his writing.

For a moment the devil stared at Scoville as if mesmerized. Then I saw that the satanic visage was, in reality, a human face topped by a low, slouched hat, and masked below by a soiled handkerchief. To my surprise, his pistol-hand sank slowly to the counter.

"Holy Moses!" he quavered, "I cain't shoot a man and him a writin'."

Scoville made a dab with his blotter and swung easily around.

"Say, kid," he drawled. "You're — a — peach. Take

that rag off your face and come around here. Le'see how you look."

With ludicrous concern the bandit let down the hammer of his weapon, put it into his pocket and shambled into the office as if the entire proceeding was a mere matter of course.

It was a gaunt, homely boy of eighteen, a hunger-marked, poverty-stricken, grotesquely pathetic wretch that cowered against the grating, blinking at us with the helpless look of a trapped rabbit. Scoville's eye took in every detail of his miserable figure.

"What's the idea of the stick-up, son?" he asked kindly. "Busted?"

"Busted," murmured the boy. "Hungry. No work. I cain't git work." His voice was husky, and I saw the glint of a tear in his eye as he barked savagely at Scoville: "I've gotta eat, ain't I?"

"We've all got to eat," said the superintendent, after a long pause, "Reese, get him a feed and a bunk and put him on one o' them snatch-teams to-morrow. Seven o'clock to-morrow, boy. You understand?" He turned again to his desk.

"Say," half whispered the boy, as he and Reese went out, "ain't he the limit?"

"H'm," laughed the foreman. "You've only seen him hire a man. You orter see him fire one."

Some seven years elapsed after I left the Acme people before I saw Reese again. We were building the Southern Branch, and on my first trip over the line I met the old fellow.



REESE.



SCOVILLE GLANCED AT
HIS SATANIC MAJESTY
WITH REMARKABLE
INDIFFERENCE.

Loquacious and friendly as ever, he insisted on showing me everything of interest in the camp. As we passed the Big Fill he suddenly seized my arm.

"Bill," said he. "D'ye know that stumpy square-shouldered plug up there on the dump?"

"Why," I asked. "Isn't that Scoville, who used to be supe at the Acme?"

"Right you are. That's him. That young cub with him's Johnny Britt, the assistant supe. Them two's what I call the stick-up twins."

"The stick-up twins, eh? Where do they get that name?"

"They earned it, by Jimminy! They earned it and I give it to them. I seen them two stiffs—you know what I seen them two stiffs do? I seen them two thieves steal an armored railway train from the kingdom o' Spain."

"Here! Here! Reese. What kind of a romance is this you're building?"

"Just to give you a faint idea of the magnitude o' that there undertaking," said the old man. "Lemme put you a hypothetical question, to wit:

"If you was a Cuban insurgent, in an insurgent's uniform, and you knew that every Spanish soldier in the Island would shoot you on sight—you understand?—that no matter what they would or would not do afterward, you was well aware from previous experience that the *first* thing they'd do would be to cut down on you with intent to kill and cripple; and if you was the commanding officer, field staff, and band of an insurgent column consisting of yourself, two other Americans and a Cuban; and while percolating through the jungle four strong, as mentioned, you came out on a railroad and saw standing thereon an armored train guarded by eight hundred gallant galoots o' the Spanish army, all armed to the teeth and loaded for bear; and, whereas,

"Would you, under them circumstances, have the bronze audacity to—try to—steal—that—armored train?"

"I would have the good judgment," I said, "to steal swiftly away from that armored train."

"Well, them two done it."

"Did what? Stole away?"

"Naw," exclaimed the old man. "Stole the train. Yes, I mean that them two cheap pilferers had the monumental, marble gall to go and steal that armored train."

"Oh, I'll admit I helped 'em do it," he continued deprecatingly, "but I only helped 'em do it to show 'em they couldn't do it—and, by gosh, they went and done it."

"Reese," said I, "if you can demonstrate to me how that thing was done, I'll buy you the most expensive drink in the State of Colorado."

The old man crammed a horny finger into the bowl of his pipe.

"We had the class all right—Scoville and Britt and me were there with bells on. And Weber—say, that Dutchman had the science of explosives down to the thin blue milk. He'd orter been an anarchist. Honest, I believe that plug could 'a' took a snowball and a box o' matches and cracked a bank."

"Then there was Delgado. He was a negro, but, believe me, Bill, he was some grub-rustler and cook. Oh, yes. We had the class all right, but that bunch we traveled with—say!

"On the square, Bill, they must 'a' had a bumper crop o' colonelcies when they invented one onto the Honorable Don Sebastian Guillerme, etc., etc., Machado. I remember the day we hit up with him, Weber says to me."

"You, R-reece! Dat distinggished-looking officerr. Ve haf been assigned to hiss commant."

"What," says I. "That pot-bellied gink with the wind-strainers draped onto his chops? Gentlemen, we've had to endure some freaks, but, suf—fering Jupiter! if that there Darwinian party don't prove to be the yellowest, quittingest, orneriest fizzle we've ever been up against, I'll eat your old sock. I don't claim no gift o' prophecy, but you'll find that I've got the potent dope on Mr. Machado, all O. K."

"And if that gallinipper could be a superior officer, you can well imagine what the rank and file was. The best-balanced gun they ever issued me, I busted over the upper right-hand corner of his chief o' staff. Aw, well, he didn't have nothing to do with stealing the armored train, except that he started it."

Yes, Machado started it. He was always for starting something he couldn't finish."

Reese gravely relighted his pipe.

"Yep," he continued, "that was Machado's long suit. If he could have finished all he started he'd 'a' been a pip-pin."

"Colonel Machado, with all respect to the fool, had the world skinned in this here one respect, to wit:

"He could put up a job on somebody and demonstrate to your entire satisfaction that the victim had no more chance than an armless wonder would have with a typewriter, and yet, when the other fellow got through working on him, you'd have to drag Machado out with a hook. I think one o' them hickory-headed general staffs rolled this armored train pill for him."

"They were going to lay an ambush for eight hundred Spaniards and an armored train at a place where the railroad made a long bend northward along a deep dry creek. While they were eating them Spaniards alive, Señor Scoville was to take his Americanos, and blow up the track behind the train so she couldn't get back, when he intimated something about the chance of failure."

"The illustreeseo *señor*," says Machado, plumb Napoleonic, "makes the joke. My genius knows not the failure."

"That, mind you, when they'd cleaned him every time he'd faced the flag. The durned old package o' peanuts was simply born with a corn on his bean, and didn't know it."

"What do you think of the colonel's scheme, Reese?" says Scoville, when we were alone.

"Great!" says I. "When they give him the grand run, we, being by ourselves, can beat it through the brush like gentlemen without having a pack o' Cubans running all over us."

"Ach, R-reece," says Weber, "you're a pessimist. You're always exberienicing sour bickels."

"All right, thinks I. I'd rather be a pessimist under criticism than an optimist under a headstone."

"I will say, however, in all justice to the colonel, that the death-trap he picked out for them Spaniards was a peach. There were three different ways

by which him and the general staff could take a swift sneak without exposing themselves.

"Three ways, understand, outside of plain running away. I'd always considered the last-mentioned as amply sufficient, having never yet seen a bullet overtake one o' them heroes after he'd got fairly started. As far as our part was concerned—well, if you cared to see box cars jump around like fleas and railroad tracks get right up and embrace each other like long-lost brothers, just let Weber place the dynamite.

"We'd fooled around all of two hours after we'd got our dynamite placed and the wire strung into the brush, smoking and dialoging over the situation, when—*Bat! Bat! Br—r—rt! Bat—bat!* they opened up.

"We're off," says Johnny Britt.

"Yes," says I, 'and I'll bet the colonel'll cut the corners as close as any of 'em.'

"Somehow, we all felt sort o' spotted about that scrap from the very beginning. She didn't start right. They just kept *bat—batting* and *pop—popping* at each other in a half-hearted, indifferent kind of a way until Scoville-says:

"Boys, that there don't sound just right to me, somehow. Them Spaniards are extending to the northeast. First thing you know there'll come a 'puff o' bullets from that flank, and before they all get by you'll see Machado's outfit coming out of that creek bottom like a bat out of a burning house. What I wish, particular, to forecast is that when they jump out in front of them Spanish Mausers, and try to beat it over the railroad dump, the results are going to be plumb astonishing.'

"What if they should come a pilfering down this side of the track?' I asked.

"We're going up the line where we can see them before they see us,' Scoville answered. 'It ain't that I care a whole



"YOU'LL FIND THAT I'VE GOT
THE DOPE ON MR. MACHADO,
ALL O. K."

lot — only the place where I want to camp is due south of here, and I don't want to have to outrun the whole Spanish army eastward and then circle back eight or ten miles to find my roosting-place.

"Weber can stay here and look out for the train. He's got sense enough to run when a run's right. I guess he can slide through the brush about as swift by hisself as he could with four of us stepping on his heels, anyway."

"Weber gave him one contemptuous look.

"'Bessimist!' says he, 'Bickles!'

"It certainly was dog-goned white of 'em to stay on their own side of the track. Any man what was ever hot-footed through the tall uncut by a bunch o' rowdy rough-necks can tell you that this here idea of blundering onto a row of rifles is entirely a vulgar and poisonous proposition. So there being absolutely nothing to hinder us, we eventually went and took a look at that armored train. Then we all sat down. Scoville looked her over a bit, and he says:

"'There she is, Reese.'

"'Say, Britt,' says I, 'there she is. That's her.'

"'Aw, the dooce! You don't say. I thought that there was a pair o' gum boots.'

"'Engine, box car, flat car, caboosse,' says Scoville. 'Plated six feet high with boiler-iron, loop-holed for rifles, loaded with feed and ammunition, steam up and her safety-valve a popping off, and not one soul aboard, so help me, Moses!'

"'Don't overlook them twenty-five gentry standing along the shady side of her,' says I.

"'Nor a hundred and fifty more



"DELGADO CAME WHIZZING OUT OF THE FIRMAMENT."

strung along the dump below her,' Britt cut in. 'But at that, she's our train!'

"'Got 'em again, ain't you?' says I. 'Did I hear you say she was our train?'

"'That's what I said.'

"'All right, Dopey. You can have her.'

"We wrangled a bit and then Britt promulgated the following nutty notion. To my mind, it had the fifth essence of foolishness skinned plumb.

"'I tell you, boys,' says he. 'We've got the dope on 'em forty ways from Sunday, and if we let this here opportunity get away from us we'll be yellow dogs. There they've got all their dead-lights on that flight. We hop aboard the train, three of us shoot up the guard, Reese pulls her out.'

"'The first time one o' them ginks hears a .45 buzz past his receiver he'll run plumb to Spain. Before that bunch along the track realize what's going on, we've brushed by 'em like a pay-car pass-

ing a tramp; and they've got no more armored train than a fish has feathers.'

"'Of course they won't shoot,' I put in, sort o' sarcastic.

"'Not through that armor,' Scoville gets back.

"'Say, look here,' says I. 'Do you two apple-knockers actually figure on riding that train out o' here?'

"'Sure.'

"'All right, boys. Every fool to his own foolishness. I'll help you do it, simply to prove to you that it can't be done. Me'n Britt to the engine, Delgado to the flat car, Scoville the caboose. You're game? Le's go!'

"In ten seconds we reached the train. Britt no more than hit the engine than he ran his rifle over the tender and, as I reached for the throttle, *crack—ow!* he cut down on a little flop-eared, tailor-made lieutenant and shot the whole top out of his new hat.

"That individual made some kind of a remark to heaven, and took it north on the air-line without even looking back. Before Scoville and Delgado really got started the other twenty-four were running him neck-and-neck and I had her on the move. Britt ducked into the cab.

"'Jerk us out o' here, Reese!' he squealed.

"Feeling the wheels grip, I pulled her wide open and we jumped at the gang along the dump like we were shot out of a gun.

"Surprised? Them galoots were so surprised that if Delgado hadn't heaved a .45 past their snouts they'd be in a trance yet.

"'Get down!' yells Britt, and as we went to the floor—*Pr—r—row!* they popped it to us.

"Bill, the amount o' glass and splinters and chunks of coal them fellows knocked off o' that train in the space of two hundred yards, was a holy fright. And noise? When they finally got their magazines empty the comparative silence was so pronounced that you could hear it. As we slid away I looked back and seen 'em jumping up and down, shaking their fists at us like crazy men.

"'Aw, peevish! Peevish!' says Britt. 'They look sort o' irritated about something.'

"'Mr. Britt,' says I, 'we've come to

bury Cæsar, not to praise him. Will you kindly poke your nut out o' that window and give Mr. Weber the high sign, before the durned Dutch yokel blows us plumb off o' the earth?'

"As I slowed her down to the place where the track was mined, everybody had his head stuck out to locate Weber. Finally Britt saw him.

"'Hey! Weber!' he sings out, waving his hat. 'It's us. Don't shoot!'

"'D'ye see him?' calls Scoville.

"'Yes. He understands. It's all right.'

"'All right, Reese,' says Scoville. 'Pull her across.'

"I guess I started her up a little faster than Weber expected. I know we got the box car and engine clean across, and Britt was still waving when—*whif—f—oom!* Dust, smoke and cinders spouted fifty feet into the air. The flat car reared up in the middle, broke in two, and rolled off the dump.

"Amid a shower of bolts, splinters, and Mauser cartridge-clips the front end of the caboose slid easily off into the hole and sat there like a big, awkward cow. As I glanced around, Delgado came whizzing out o' the firmament and hit the ground like a ton o' brick. I started toward him, but Scoville waved me back.

"'Back to the engine, Reese. He never even knew what hit him.'

"Just then Weber's rifle popped. As the bullet spatted into the dump, we saw a spot of smoke and, under it, the faint flicker of Weber's legs going south.

"'Aw, you're making a brilliant retreat, ain't you—you oak-headed Dutch—' squeals Scoville, shaking his fist at the jungle.

"'To the engine!' yells Britt, 'le's take what's left and get out o' here. For Heaven's sake, listen to that firing!'

"I noticed, then, that the Spaniards were handing Machado one awful package of Mauser.

"'Yes,' says I, 'le's get out while we can. I think they're flying the colonel's kite.' At that, Scoville hops onto the car.

"'Give her the juice,' says he.

"You talk about your record runs! I jammed the throttle into the last notch; I gave her every pound of steam that was in her. For a moment she struggled and

fought against her own weight with the fury of a trapped tigress—a writhing column of smoke above her, beneath her a stream of fire, and then—

"Right and left the jungle broke up and steamed away in a jumble of little hills, scurrying around each other like rats. Rocks and trees jumped up, gave us a glance, and flitted past. The track ahead was a hurrying blur of brown, double-striped with a shimmer of gray.

"Above the clang and clatter of her running-gear sounded the *rack-rack! a-rack-rack! a-rack-rack!* of her wheels hitting the joints. Her funnel roared like a tornado, her cab was a madhouse of spattering cinders, and the wind was whizzing through her broken window-panes.

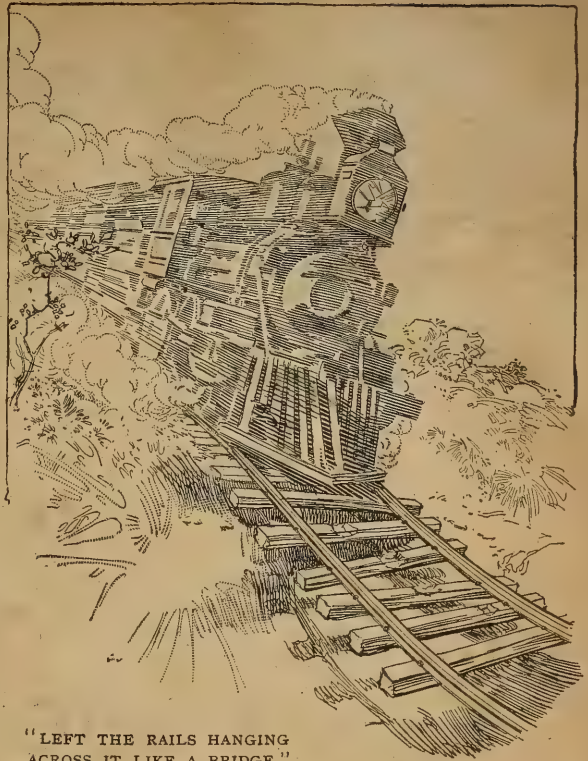
"I've coasted 'em down the long grades of the Appalachian foot-hills so fast that you had to look twice to see 'em, and slammed across the Kansas prairies neck-and-neck with the wind, but, suf—fering Jupiter! this durned old rattle-trap was a perfect cyclone of steam and steel.

"Without one touch of brake or throttle we hit the curve like we'd been flung from the clouds. For an instant she tottered and bucked, lurching from rail to rail, and then, as we skidded into the long bend along the creek, I looked up and saw Machado's jack-rabbit regiment streaking it to the east with the Mausers kicking up the dust all around 'em, and away down in the rear, behind the railroad dump, Machado and the general staff nervously swinging into the saddle for a run.

"I don't know what made Britt start swinging the bell. I know it attracted their attention, and as we flitted past one big fellow he filtered a load of buckshot in through the window and pretty near got both of us.

"Pipe down on the monkey business, Britt, I yells. 'This ain't no picnic.'

"Well,' he grins back, 'I don't want our own comrades to run over us.'



"LEFT THE RAILS HANGING
ACROSS IT LIKE A BRIDGE."

"Before he quit talking there came the bellow of a field-gun up in the brush and a shell whizzed over us, sputtering like a wet snowball. One look at that battery was enough for me.

"There, idiot!' I shouted, 'you see what you've done?'

"What?' says he—and *bang! bang! Whop—whop—whack! Whoof!*

"One of 'em fanned through the tender, scattering coal all over the island of Cuba. The other ripped a tunnel through the road-bed ahead of us and left the rails hanging across it like a bridge. Britt took one look at the ground flickering past us and turned white. I turned my head away and we smashed into it. She gave one sickening lurch to the left. I heard the crunch of her tracks as she bounded over and righted, snatching the box car clear of the sagging rails, the crash of her wheels bumping the cross-ties.

"There was a shock and a roar forward, and, as the pony trucks toppled out over the embankment, her boiler plunged deep into the road-bed, hurling

me through the window. As I crashed into a mat of underbrush, the box car skated across the wreck and came reeling at me like a thing of life. Even yet, when I take a few too many, that box car chases me all night long.

"Johnny Britt? To this day Johnny Britt can't tell you when nor how he left her nor where he landed."

"As Britt dragged me out of the brush, Scoville dropped out of the box-car cool as ice.

"Hurt, Reese?" says he.

"Not so badly," I answered, "but what I can outrun anything in this

bunch.' And lemme tell you, Bill, they didn't lose any time trying me out.

"That fight queered the colonel's cabbage. The insurgents bounced the old chromo so hard that he splattered."

Reese paused.

"By the way, you'd orter remember that fellow Britt."

"I? I never heard of him before."

"Don't you remember the kid that tried to stick us up down at the Acme that time?"

"What?"

"That's him," chuckled Reese. "Le's go'n get that drink."

WHEN RULES WERE SCARCE.

BY E. A. SPEARS.

"THEY are always telling that it is better on the railroad these days than in the good old times," said the old conductor, "and in a way, life on the roads is better than it used to be, and in another way, it isn't. Things used to go along in an easy manner and you didn't have to use a great deal of brain power.

"Why, not much more than ten years ago, a crew stopped a freight-train down at Sherburne and went to a dance, and were there an hour or more. To-day, if a train is five minutes late, you get a telegram which runs like this:

"Please advise us why No. X was late."

"We used to stop trains at good swimming-holes along the way and go in swimming. That's a fact. You can see life was a bit easier then.

"Not a great many years ago, they could ditch a freight-train forty cars high, set them afire and go on with the rest, and nothing much would come of it. To-day, if you bust the knuckle you've got to tie a tag to it and send it in along with a letter telling how it happened.

"When conductors had it in for the engineer, he would hook onto thirty cars—a good load at that time. It would make the engineer mad. The conductor would report that he had hauled fifteen cars, and the head office wouldn't know the difference. The next day the conductor might take ten cars and report that he had taken fifteen, and thus juggle the figures as he liked.

"It's different now. The office hands you out a fistful of bills and says, 'Take those cars to Station Z.' You take them all

and report at the other end that you have delivered them, and you hand over the bills with the number of each of the cars.

"In the old days, you wouldn't pass a train in a hundred miles, perhaps, and you didn't have to know a great deal about the road.

"But it isn't such a cinch now. You must know all the trains on the division, and, practically, at what time each one will be at each of the stations. You must know every inch of the track, the grades, curves, switches, and signals.

"You must also know the Book of Rules, keep track of the bulletin-board, know the men you come in contact with, be aware of special rules, study the mechanism of the engine, and be conversant with a heap of other things.

"You've got to be studying all the time, and, along with this, you have the manual labor to perform, heave coal if you're a fireman, work the levers, oil the engine, if you're an engineer, depending upon what you do.

"They are always telling how many got their hands and feet cut off, and how many were killed on the road. The fact is, in those days, it was the regular thing to go out half-cocked and with a half-pint in your hip-pocket. A good many were drunk when they got hurt. To-day, if they even smell the trace of a drink on your breath, you get more than a cross-eyed look.

"Rule G, on the New York Central, says that a railroad man entering a saloon is sufficient cause for his discharge. Railroad-ing is a strict business to-day, and, in some ways, the men had an easier time of it some years ago."


The First Railroad Across South America.

BY GEORGE W. GRANT.

THE proud peaks of the Andes that for years have defied all efforts of man to gird their lofty summits with rails of steel, have at last succumbed to the unceasing pound of compressed-air drills and the rending, tearing force of high explosives. Where, from the beginning of time, silence has brooded over the fields of eternal snow, the shrill whistle of the locomotive and the shriek of steel on steel is now heard—triumphant battle cries proclaiming that man has won another battle against the relentless forces of nature that block his way to progress and civilization.

The history of the Trans-Andean Railroad is a story of human toil and suffering. Scores of lives have been sacrificed and failure upon failure recorded, but with a stamina and grit that is found only in heroes, the men who held in their hands the destiny of a continent have again and again flung their forces against the cruel mountain steepes, sometimes to pause, blinded and bleeding, but only to go on with renewed vigor. This finally won out, and the Trans-Andean system stands, to-day, a monument of human perseverance and ingenuity.

How Nine Days of Travel Have Been Cut Off Between the Pacific and the Atlantic Ports of South America by the Most Strenuous Railroad Building Ever Known in History.

O far away that very few of even the best-informed practical men and scientific experts in this country or in Europe know much about it, one of the most remarkable railroads in the world has just been completed. This is the Trans-Andean Railroad of South America, opened for traffic early in the spring, after thirty-seven years of construction.

Making its way over the worst mountain ranges that steel rails ever climbed, planned with terrific grades that cost might be reduced, and the system prove a success commercially from the start, it joins the east and west coast of the southern continent, extending in a straight line from Buenos Ayres to Valparaiso.

The schedule-time of through trains from ocean to ocean will be twenty-nine hours.

There are many South American railroads in operation. The Argentine alone has 14,000 miles of them across the pampas or prairies, besides its 700 miles of tracks reaching to the slopes of the Andes, and 1,000 miles of them stretching north of the boundaries of Bolivia. Bolivia has what is probably the costliest railroad anywhere—a mountain line up among the northern Andes that has never paid.

All in all, however, the total mileage below the Isthmus of Panama amounts to scarcely a seventh of that of the United States, Canada, and Mexico. The Trans-Andean Railroad is the first transconti-

mental line in the entire southern hemisphere, for Africa thus far has none.

New names are now being added to the history of railroading—names that in latter years may be as famous as those of the men who, when the western section of the United States was still the Far West, in spite of every obstacle, solved the problem of girding the North American continent from shore to shore; names such as Theodore Judah, Leland Stanford, and Collis P. Huntington. What these men did in the sixties has again been accomplished in this new Atlantic-to-Pacific line, 882 miles long, with a mountain section, containing 160 miles of steep, winding grades.

C. P. White, of England, was the man who took up the work when the original projectors, John and Matthew Clark, were unable to finance it any longer, finding, after twenty-five years of experiment and toil, that no investors could be induced to put money into their engineering theories.

The Master Minds.

After six years as resident engineer, with the knowledge that his plans were working out to perfection, Mr. White broke down, his eyes becoming seriously affected by the snow glare of the Andes, and his health generally giving way under the strain.

Frank T. McGinnis, an American engineer, who succeeded him, pierced the last foot of granite in the Summit Tunnel, thus joining the Argentine and Chile, and finishing up all the work with the exception of the clear-up.

Under White was the German engineer Hummerson, who has since retired, and Bertram Norton, an Englishman.

No one has ever estimated the vast sums that John and Matthew Clark spent in attempting to drive a railroad over the Andes. It was simple enough to build along the Argentine pampas, where cattle, wine, and wheat furnished the bulk of the freight business, and the route from the Chilean coast to the Andes also was an easy matter. But when it came to the stretch that is less than a hundred miles in an air-line over the mountains, the years went by, and a railroad was as far off as ever.

By vast efforts, the lower slopes were finally conquered. In 1903 there were forty-three miles still uncompleted, however, between the Chilean and the Argentine terminals, with all the heavy mountain work between practically untouched.

The First Failure.

The Clarks' plans was a railroad in spirals, burrowing through the mountains thousands of feet below their summits. In this way they intended to do away with the enormously heavy grades that would otherwise be necessary for at least thirty miles. Driving the road through the mountains, the snow problem would also be eliminated, they argued, for at least five months in the year the coach road across the frontier is made useless by snow avalanches and torrents of mud from the precipitous peak.

The wealth of the mines of Golconda poured yearly into this spiral construction might have made such a scheme possible. Most capitalists, however, while willing to take big chances, did not see it in the light of a good investment; but, before the spiral idea petered out and other interests replaced the Clarks' backers, \$3,000,000 worth of electrical machinery for the work was carried up into these mountains on mules and an army of Chilean peons put to work.

All the machinery is there yet, including a number of dynamos, electric drills, and turbines. An engineer who has recently been over the work stated that there was easily \$75,000 worth of copper reposing on the mountainside.

With all this nothing was accomplished. The Clarks bored in ten or fifteen places, and then gave up.

White Takes Charge.

White took the bull by the horns. The London houses of the New York firms of W. R. Grace & Co. and J. P. Morgan & Co. were then financing the undertaking, and had contracted to join the two lines of road that stuck ineffectively up into the mountains, the Chilean government guaranteeing the interest on the bonds.

White jammed the road through, carving little for the steeps, forcing it over

the mountains in the shortest, simplest way. The Oroyo Railroad, the famous Peruvian road already mentioned, has a great many switchbacks. Construction of that sort, according to the ideas of this master engineer, was too costly to be considered. Even a one-meter road begins to run into dollars very quickly when its tracks double upon themselves many times.

Therefore, White ran the Trans-Andean road up the precipitous barrier on the Chilean side as a railroad has seldom been run before, and never before over such a distance.

He practically ignored grades. For mile after mile of this mountain section the grades he planned and built are eight per cent. This means, to the man riding down, that the track drops away so fast that a few feet ahead it literally disappears, so far as the eye can see. In ordinary railroading, even in very mountainous districts, the maximum grade is but four per cent.

Under ordinary railroad conditions such a line would not, of course, be practicable. By making the steepest portions a rack road, however, even heavily loaded freight-trains can readily negotiate the grades. The rack comprises a cogged track, into which mesh specially cogged wheels upon the engine. Thus the train is prevented from slipping back, and the cogged wheels get a purchase that enables them to climb a very heavy grade.

The operation of the rack system may well be understood by those who are familiar with the railroad up Pike's Peak. The Trans-Andean road is very similar. The engines have two sets of cylinders and rack-wheels, beside the ordinary driving-wheels, which work simultaneously; and, notwithstanding what seems a somewhat complicated mechanism, the trains are able to make close to twenty miles an hour. The engine enters the rack with scarcely a sound.

Peons and mules are the real forces, without which the boring of the fifteen tunnels which occur in the thirteen highest miles of the road would have been impossible.

About 800 men have been at this work for the past seven years, ever since the new engineering force climbed into the saddle and mounted from Los Angeles on

the Chilean side up the mountains along the River Aconcagua. That has been about the average size of the construction-gangs, but does not include the men in the swamps cutting timber for the false work, nor the men scattered over the nearby country buying mules.

Carrying a Railroad on Mules.

The Chilean mule has been nearly as great a factor in the construction of the ocean-to-ocean railroad as has the peon. Small, strong, patient, unlike the big Missouri mules, but full of energy, these little animals have for the past seven years been the advance guard of the railroad as it climbed over the mountain-tops.

A mule's load averages about 150 pounds, and tons and tons of heavy machinery, to say nothing of timber and supplies, were transported in this manner. The hard work killed close to 200 a month.

The tunnel work meant much complicated machinery that had to be hauled up the mountains. If a mule could not carry a part, it had to be dragged by a team of mules, or, at the worst, pinched along with iron bars.

Pinching consists of prying underneath the mass to be moved with crowbars and advancing it inch by inch. Sometimes, in mountain railroad work, there is no other way. The mules did most of the moving, however, and the triumph of this vast and revolutionary enterprise belongs to them in part.

One victory of the little beasts was the carrying of four three-cylinder, 120 horsepower oil-engines, and one of two-cylinder, 80 horsepower, that drove the air-compressors for the tunneling at the mountain-tops. Three of these engines were moved, with vast toil, to the Argentine slope, while two were placed on the Chilean side.

The larger four of these had to be knocked down into 800 pieces. It took one man and four assistants three weeks to put each engine together.

The peon workmen received six to eight pesos, \$1.50 to \$2.00, a day. A curious labor feature was that many of the gang-bosses were Italians. These Italians have proved more successful bosses than the Chileans, and were hired wher-

ever possible. They received ten pesos, \$2.50, a day. There were practically no Italians at all working on the road as laborers.

Peons subsist upon potatoes, beans, charcha (dried cow's meat), and drink their native wine. On the march of the railroad they have been living in camps of wooden buildings covered with corrugated iron.

Obstacles Met With.

The dangers of building a railroad up the Chilean slopes of the Andes, the rest of the work having been, comparatively speaking, child's play, have been little told; but we have numerous instances of men working on narrow shelves being swept off into the river below by snow-slides, or engulfed in a torrent of mud and stones. The decrees of fate are accepted without complaint by these Latin-Americans, and as their companions disappear, one by one, they simply cross themselves, say a prayer, and go on with their work. Oftener than otherwise bodies are never recovered.

None of the figures of the death rôle can be approximated. All that is certain is that the work has gone doggedly on, and there is small fear that the Trans-Andean Construction Company will not collect the million and a half dollars bonus due it for finishing the road ahead of contract time. Heedless of everything but that of moving forward as rapidly as possible, engineers, gang-bosses, and workmen have striven with the precision of the most well-drilled armies in the field.

No part of the world more cruel, from the point of view of the railroad builder, can be imagined. Nearly 12,000 feet above sea level, with the cruel snows that block the coach road over the Uspallata or Cumbre Pass between Chile and the Argentine to contend with, and avalanches of snow and mud always menacing, the situation is dangerous in the extreme. There is a persistent high and biting wind, and the snow glare grows fearful to the eyes after a time. Shortness of breath and other afflictions of high altitudes add to the list of sufferings.

White, the chief, was not the only one who was afflicted with snow blindness.

It has been a common malady upon the Trans-Andean, and scores of engineers have had to give up their work for this reason.

In no other branch of human effort does ingenuity, forethought, and the power of adapting circumstances to ends, count so much as in the construction of a big mountain railroad.

One instance of where an engineer's keen mind saved a vast quantity of hauling was shown by a scheme he devised for moving supplies. The point he desired to reach was almost directly above, 800 feet higher up the mountain, an almost vertical climb. The trip by the coach road required a détour of several miles, and by the railroad line, partly constructed, it was almost as far.

The engineer did not hesitate a moment. A glance showed him his opportunity. Though from point to point it was almost a vertical air-line, he managed to build an inclined plane road up the 800 feet cliff. Two box cars balanced each other on this, one ascending while the other was descending. For months the box cars on the cable carried machinery, food, oil, timber, doing away with a haulage of at least more than two miles. Considering the vast amount of work it did, this temporary inclined plane road cost almost nothing.

What One Engine Did.

Engineering experts interested in the progress of this Andean road have not yet ceased to talk of an American engine that made a wonderful freight carrying record from Los Andes, the Chilean end of the road, to the mountain-line terminus.

This engine is said to have done the bulk of freight carrying for the construction work. It handled enormous loads over sections of track that are now using the rack, and did so without any cog-wheel traction devices whatever. It was a regular locomotive in all its details except in its engine parts. These consisted of a three-cylinder vertical engine bolted to the side of the boiler with its main driving shaft connected by universal joints to all the trucks of the engine and tender, thus making every truck a driver.

It did the trick, however, and did it

well. The history of the Trans-Andean Railway is filled with incidents such as this, which go to show how the problem of half a century was solved in record time. It was a big job, the biggest sort of one, and carried to completion in spite of the thousand and one difficulties encountered. Even the timber used in the tunnel building due to the quick-rotting characteristics of the native redwood, had to be brought down from Puget Sound.

There are few bridges along the line, but none of them are very remarkable. White's plans kept the road hugging the cliffs, and closely notched deeply into the sides of the mountains, finding a foothold wherever possible; digging, blasting, and here and there bridging a chasm with a space of concrete; reducing expenses and getting results at one and the same time was his object.

Wherever he had to he drove a tunnel. The Summit Tunnel is the master-work of all; two miles long, directly under the boundary of the two republics, and 3,000 feet under the mountainside. Precisely over its center, by a peculiar chance in the Uspallata Pass, is the wonderful bronze statue of the "Christ of the Andes," erected by Chile and Brazil jointly, to symbolize an eternal peace pact between them.

One piece of bridge-work which deserves attention is the "Salto Soldato," or Soldier's Leap. A single concrete span, which resembles the center of an hour-glass, the cañon above and below having the form of a double bottle.

American rolling stock, American rails and ties, are to be used on this road. It must be said, however, that in the construction work some Belgian engines have given famous service.

Thus the Trans-Andean Railroad has become a reality, and the time it takes to travel from Buenos Ayres and other cities of the Argentine to Valparaiso, Santiago, and all of Chile has been cut from ten days to twenty-nine hours. Up to now, unless one cared to ride a day and a half on muleback, or in a jouncing coach over the Uspallata or Combre Pass, and this was only possible in the late spring, summer, or early fall, the only convenient way was to take a steamer around Cape Horn. Such a journey overland was too venturesome to tempt

many travelers to make it, and the moving of much freight was impractical.

A Boon to Travelers.

The new road also cuts off the same number of days between Chilean ports and New York, London, and Hamburg. Hence its commercial advantages are enormous, and will rapidly grow even greater. Building the mountain stretch has cost over six million dollars, but it is well worth it.

It shortens the route between Europe and the east coasts of South America by about 1,000 miles. From ocean to ocean it is 888 miles long. Even in its uncompleted condition, with the necessity of making the journey over the mountains by muleback or by stage, the traffic in 1907 amounted to 244,000 passengers.

On the lower sections the tunnels were driven by hand. There are twenty-five of them in all. The locomotives which are to be used are of the combined type, being equipped with rack wheels, and weigh about 100 tons each. They were decided on after much experimenting. The contractors believe they are the heaviest meter gage engines ever built.

Wheelwright was the name of the man who first proposed the road. He sent a communication regarding it to the Royal Geographical Society of London just fifty years ago. But Wheelwright was only a dreamer. He is all but forgotten now. Coupled with the history of the Trans-Andean road will go the names of Grace, Morgan, White, and McGinnis.

South America has long been waiting for such a railroad. It has many lines of tracks, but they only fragmentarily serve the needs of trade. The continent's great volume of commerce is principally carried on over its vast network of rivers, in semi-primitive fashion. Huge sections of territory yet await exploration in Brazil and Bolivia. Here is still the great field of river navigation, the Orinoco on the north, the Amazon, the Parana, and the River de la Platte further on the south, the Magdalena in Colombia, the Rio Negro in Southern Argentina, and the San Francisco in Central Brazil. The Amazon system alone contains 15,000 miles of water that is commercially navigable.

Taking Orders from Death.

BY PETER MULLIGAN.

WHEN coupling cars meant holding up a link with one hand and dropping a pin with the other, while the draw-heads tried to crush out your life in their vise-like grip, being a member of a train-crew was on a par with wearing the khaki and letting Molos take pot-shots at you with their rusty Mausers.

Those were the days when the Grim Reaper claimed a heavy toll, and the railroad men who met death with their boots on was more than double the number in these days of the standard gage and the Janney coupler. Only men who either put no value at all upon their lives or were brave to the point of recklessness, could have stood the strain of setting brakes on an old-fashioned double-gage road with its broad and narrow jimmies jumping about in the freedom of their three-link couplings, and trying to shoulder each other off the track—which they quite often succeeded in doing.

Although the Door of the Caboose Was Frequently Hung with Crape, It Was Difficult To Dampen the Spirits of the Courageous Crews.



THE man who named the caboose evidently regarded it in a comical light. Try to think a few tragic thoughts about it, and you find it is impossible. The name is against it. It is difficult for any one to regard it seriously. There it goes bobbing along at the end of the train like an old woman shooing her chickens. Caboose!

But there was a caboose that used to make men shiver when they climbed aboard. There have been others, too, but none that sent such cascades of cold pouring down the spinal column. As it jerked forward out of the yard, with a groan, every man in it would say to himself: "I take that all back about what I was going to do to-morrow. I'll make this little run first, and then, if I am still moving around, I'll consider the matter further."

Quite a few men who carried thoughts

like this with them as they pulled into the main track never did reach to-morrow, and there were others, too, who laughed at its evil record, and managed to stop short of the line.

And, at that, it was one of those absurd, old-fashioned cabooses that rocked and bumped and groaned and squealed, and seemed to have a premonition that the train behind would catch up some day and boost it down the grade, making it more ridiculous and undignified than ever.

A Caboose's Grim Record.

But, of course, it did not happen that way. Premonitions are great deceivers. The man who kept off the water, because he was sure he was preordained to be drowned, got hanged, and the old caboose that expected to be lifted from behind and turned on its nose in the ditch, got mixed up in—but, wait a minute, let

the caboose come to its ignominious and well-deserved end all in good time.

It was No. 312—held in unpleasant memory—and its wheels were six feet apart, to fit the track of the Erie twenty-five years ago. This comical old piece of rolling stock, after taking home the bodies of a score of men killed in handling the train, rounded out its career by wearing mourning for a solid year.

It is safe to say that this record is unequaled in the history of railroading. It means that it was in at the death of twelve members of its crew within twelve months, as mourning was only worn for each victim one month. With four or five men in a train crew, as they used to be made up on the Erie, a toll of twelve meant more than two complete crews. In fact, it was three, as the conductor lived through it all, only to ride old 312 to a more sudden and unexpected end than any of his crews.

War could not have done worse. The same piece of crape, tacked to the door, hung there until it was weather-worn. Each time, as a month rounded towards its close, and the crew thought that at last the spell had been broken, then a crash and a groan, and 312 had registered another victim.

"I was only on her for two months at the end," said the sole survivor, in reminiscent horror, "but I saw two of the twelve die. Bennett, who began breaking with me to take the place of a man who had been killed, was climbing over an empty coal dump, known as a 'jim-my,' and was right in the middle when the train gave a jerk that opened the dump, and threw him flat on the track. The other was Cline, who succeeded him. At Newburgh Junction he was making a three-link coupling, when his foot became caught between two rails, and the train cut off both his legs. I helped carry him home—there was no other place to take him—and there he bled to death."

Of the other ten, six were killed making couplings, one was hurled from the top of a box car by a sudden jerk, and the other three started out from the caboose in the night to set the brakes, and were found afterwards on the track ground to pulp.

Marvin, the conductor, figured it out that he must have a charmed life, but

one day, while sitting in the old caboose, an engine, which was getting ready to blow up, drew in alongside. And when it went off, like a big fire-cracker, it caught 312, with Marvin inside, and did not even leave the hoodoo.

This is the most complete, single and startling record left from the old days of the double rail on the Erie, which lasted for a period of ten years, and is the bloodiest piece of railroading ever known. Where there is one man killed on the Erie to-day, the veterans assert that there were five hundred who met their ends at that terrible time. Death rode on every train, and "they had a man for breakfast" every morning.

Mixing the Gages.

It was all brought about by a fact that is not known, even by most of the men who are operating the Erie to-day. The Erie was one of the first railroads, and was laid with a six-foot gage. Once started that way, it was extended at the same gage, and for forty years engines



THE TRAIN CUT OFF BOTH HIS LEGS.



HOOKING A NARROW AND A BROAD-GAGE.

the size of a barn-door hauled cars as wide as a house all the way from New York City to the Great Lakes.

When it was decided to narrow down, the old gage was left for the use of the old rolling stock, and cars of both gages were hauled in the same trains. Death lurked between the gages, and the men who worked those trains flirted with it every moment of their runs.

In making up the trains there was not time to separate the broad and the narrow gage cars, and they were hooked together indiscriminately. The draw-heads missed each other by a foot, and to make the coupling it was necessary to use three links, or two full links and one broken link, a coupling that was called the toggle. With so much iron between the cars, when the train was taut, there often was a jump of about five feet to make.

If the cars were of the same height this was not so bad, but it was an adventure to cross if they were not. The combination most disliked was having a jimmy between two box cars. The jimmies were mounted from the side, and to reach the steps the brakeman had to let go with both hands, and throw himself forward, trusting to luck that he would land. If just at that moment the train

suddenly picked up or dropped slack, that was safely the end of him.

In icy weather, in pitch black night, on an uneven track—is it any wonder the deaths were counted by hundreds?

Riding With Death.

They were gay, wild fellows who were running the Erie in those days, if the few who survived are any indication, but the accidents had a trick of happening in such an order that they did not grow hardened. As soon as one big wreck took place, there would be two more almost immediately. It was uncanny, and it sent many a train crew out for a run with a pretty sure hunch that some one was going to come to the end of his rope with a sudden jerk before the night was over.

The first question every train crew asked the moment it reached the end of the division, or upon appearing for work, was: "Anybody killed?" If, as was usually the case, they heard the details of some awful accident, they lost a little of their starch, and stepped lively to see if they could not prevent themselves from being counted two or three. It's all well enough to laugh at it as a superstition now, but it was too real to be neglected.

Coupling was the worst. The old pin was bad enough on any road, but hooking together a narrow and a broad-gage car was ten times as dangerous. The brakeman had to stand so that one draw-head would drive him into the other car, if he did not make the coupling right on the second, and jump back to safety. The stories of those who failed run beyond reckoning, and all have the same ghastly similarity.

Getting Rid of the Man-Eaters.

Some cars seemed to have a personal animus, and killed for the joy of slaughter. Two became notorious, and were known from one end of the line to the other. They were iron coal-dumps, standard gage, built as samples, to see how they would work in comparison with the old-fashioned wooden jimmies. Fortunately no others were ever put into service, for they could hardly have had

bloodier careers if they had been built as engines of destruction.

The dead wood at the end of the steel dumps was just narrow enough to miss the coupling on the jimmies, but wide enough to pin a brakeman fast. At first, the danger in them was not realized, but it was noticed before long that a man who was caught between one of them and a jimmy did not get off with a mere squeezing and a dislocated liver. It always killed.

Then word was passed along the line that they were as dangerous to handle as dynamite, and an unspoken agreement was made to get rid of them.

They began to have accidents. They did not seem to be able to keep the rails, and now and then, they turned up unaccountably in the ditch. But each time they were jerked back, and put into the service again. And still their bloody record grew. Inured as the crews were to accidents, they hated to see those dumps in the train. They knew it meant trouble.

A flagman, a white-haired conductor now, solved the problem. The two dumps were together one night, and were being shoved up an incline that ended in a sheer drop. The flagman saw the chance. When the first was at the right spot, he signaled to give it an extra shove, and over it went, tearing away from the coupling, and smashing into an unusable mass.

"Just one more little shove," he cried to the engineer. "Ah, there she goes, and that's the last of those man-eating dumps."

Couplings had to be loose, otherwise the cars would have been jerked off the track sideways. At the best, the strain between two cars of different gages was all the rails could stand. When a train started forward, and couplings went taut, it sounded like a rattle of musketry. Each car received a jolt more violent than the one before, and by the time the caboosé was reached it was almost pulled in two.

As the track was full of little pitches, every now and then an extra little jerk would pass through the train, even in motion, and old timers tell many a tale of men, who were not expecting it, being whirled from the top of a car. But much

more common was death from the breaking of a coupling. When the strain slackened, and was picked up again suddenly, a pin was liable to jump out, or a coupling break. If a man was passing from one car to another at that inauspicious moment, down he went between the wheels.

How Sully Disciplined Them.

Stories that are much more easily told are of the funny things that happened. There was one engineer, Pete Sully, who made use of the slack for his own purposes. He was older than most of the men, and had an idea they needed a little



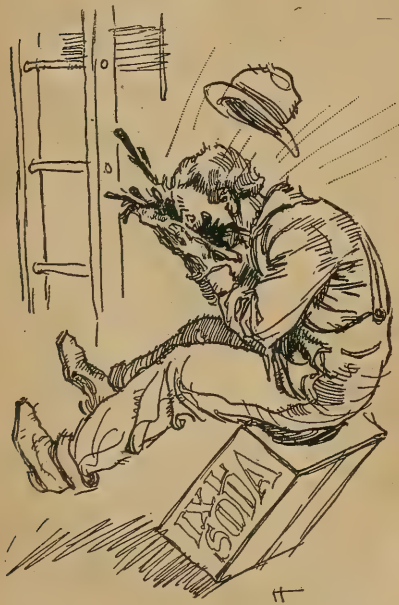
TRUSTING TO LUCK HE WOULD LAND SAFELY.

disciplining. As he could not tell what was going on in the caboose, he would give it a little jar now and then, just to keep the crew on the watch. Occasionally he made a random shot that went home.

Dallas Washer, later a victim of a broken coupling, had a leaning towards pie that struck Pete Sully as inordinate, and he always had something to say about it. If anything went wrong, he laid it to Washer's fondness for pie. One night, as they were whirling through West Paterson on the late freight, he turned around and noticed that there were no tail lights on the train.

"There now," he said, "Washer's at it again. I'll just jar him up a little, so he'll know I'm thinking of him."

Washer was, in fact, in the caboose,



HE BURIED HIS FACE DEEP IN THE THICK BLACK PASTE.

holding in both hands a whole thick, juicy huckleberry pie, and he was just putting it up to his mouth hungrily when the jar came. His hands flew up and his head down, and he buried his face deep in the thick black paste.

Sully, of course, heard about it, and it inspired him to other efforts. Trapper Winfield, later a widely known Erie conductor, but then a greaser, had a habit

of leaning over the water barrel, and sticking his head out the window at times when Sully thought he would do better to be at work. But Winfield only laughed at Sully, and leaned over the barrel as usual. Sully planned his lesson. Waiting until the train was just starting on a steep down grade and all the cars were being carried forward with an extra impetus, he threw on the reverse, and took up about eighty feet of slack. It came so suddenly that Winfield did not have time to draw back. The jar tore the water barrel loose from its fastenings, and over it went, sousing Winfield to the skin. Sully saw his head disappear as he went down to the floor, and cried out:

"Ah, ha, my fine boy, your roosting place is gone."

But Sully's particular antipathy was a dandified chap who lived in Paterson, and ran down to New York several nights a week. The freight that Sully hauled left Jersey City after the last passenger-train, and this man made a habit of returning just in time to catch the freight. He even went so far as to obtain special permission from the company to ride on that freight. Sully eyed him with disfavor from the start, and questioned the crew as to where he was in the habit of sitting, whether he went to sleep, and, if so, his relative position to walls, benches, and tables.

Punishing a Passenger.

Waiting until one night when the Paterson man had on his evening clothes and his high hat, Sully put his information to use. According to his custom, the passenger leaned back in a chair, and braced his feet against the forward end of the car. In five minutes, as usual, he was asleep, with his head between his knees, and his high hat pointed directly at the wall.

The train was extra slack that night, and when Sully threw on the reverse it jerked the caboose forward with a rush, and brought it to a dead stop. Sully was entirely successful. He drove the Paterson man's hat clear up to his chin, and they had to cut it off.

The jimmies made the trains particularly loose, as they were short, and had

only single trucks. They were also highly sensitive, and half a dozen of them between two heavier cars would at the least provocation jump over each other like a flock of sheep.

Mose Jordan, formerly yardmaster at the Jersey City terminal, but a brakeman and freight-conductor in the days of the double rail, gave some idea how it was from the stories he told.

"One day we were coming through the Outerkills," he said, "picking up empties at all the side tracks, and before long we had nineteen jimmies in a string. This left a lot of slack in the train, and every time we stopped or started it sounded like a roll of thunder. I was in the cab with Billy Johnson, the engineer, and he was picking up and letting out on the speed rather recklessly.

When the Jimmies Jumped.

"The trouble came all at once. I had just turned around to see what had become of Carter, my rear brakeman, when Johnson threw on the reverse a little too sudden. Quick as a wink the whole train shortened up, and the heavy cars in the rear set the jimmies to jumping. Carter was right in the middle of one when it broke its coupling, and made a flying leap to the second one ahead. At every jump he landed on top, and after some of the finest gymnastics you ever saw, there he was twenty-five feet in the air on top of the pile of nineteen jimmies.

"It was right in front of a station, but the operator lived on a farm half a mile away, and I started across the fields to get him. Just about the time I was all out of breath from running and cursing the whole race of operators at the same time, I tripped on a pumpkin-vine, and there I lay, swearing I would never run a train again in my life, when I heard Carter perched up there in the air give me the laugh. Johnson was another of those laughing fellows, and there the two of them sat, just watching me, and enjoying it, while I scared up the wrecking crew. It made me hot, and I got up and came walking slowly back.

"Now, Mr. Carter," I said, "you can just come down off your jimmies and go get your own wrecking crew."

"Johnson piled up so many jimmies," Jordan went on, "that he gradually grew more careful. And after he had smashed in the end of his own nose for being too free with the throttle, no matter what was in the road, he would not pull up in a hurry.

Ditching a Section-Crew.

"Coming around a curve one day, he saw the section-crew on a hand-car ahead,



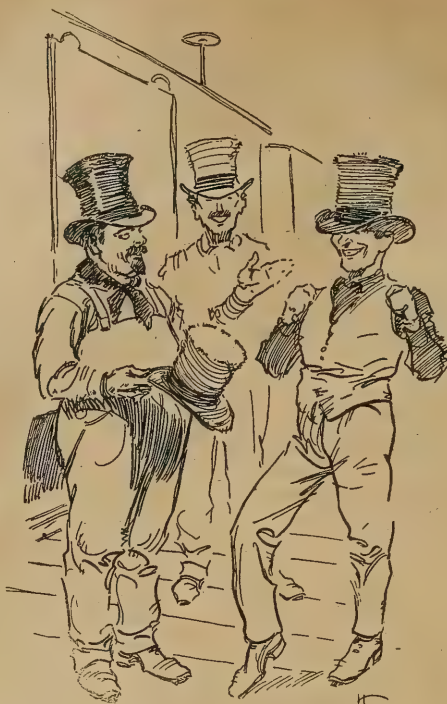
THE JAR TORE THE WATER BARREL LOOSE.

but he had no intention of jeopardizing his jimmies for them, although they thought he had. It didn't kill any of them, but it dumped the whole outfit into a swamp. Johnson watched them go, and it struck him funny. So he sat there, and laughed, and kept on laughing until the section-crew got sore. Since he had hurt his nose, his laugh also had a peculiarly unpleasant sound. There was an old Irishman in the crew, and he was sitting there in the swamp, trying to knock the dents out of his dinner pail.

"Laugh on, you can afford it, ol' flat nose," he said, as if he had not just missed being run down, "but if you had to put out a good dollar fer a new bucket, you'd

be laughin' on t'other side o' yer face."

When all the broad-gage rolling stock had been worn out, the six-foot gage was torn up. After ten years, beginning in the middle '70s, and ending in the middle '80s, there was to be an end to the slaughter. So many men had been killed and so many families had lost a father, or a son, during the reign of terror, that the new régime was greeted with wild rejoicings. Nowadays, when month after month passes without a single man being killed on the Erie, and the use of all the latest safety devices, it is difficult to realize what this meant; but the men who were running trains at that time celebrated the occasion as if it were the close of a war. Trains were cheered as they passed through towns, and the railroad men themselves saw the last of the double rail with profound thanksgiving.



THE PLUG-HAT GANG.

Bush Boyd, a famous old engineer of those days, wanted to do something on this occasion that would make it memorable, and he told about for years to come. He set about making his preparations secretly, and even the other men on the train did not know what was in store until the morning they pulled out of Port Jervis, on the New York division, with the first all-standard-gage train.

Just before they started, and while the whole town stood around to cheer them off, he got the crew together, and gave each

one an enormous, bell-shaped beaver hat. It was a sensation. News of the "plug hat gang" went ahead of them by wire down the Ramapo, and the Delaware and the countryside, turned out to see them pass, with Bush Boyd's beaver and a cigar a foot long sticking out of the window of the cab.

A SCHOOL FOR STOKERS.

THE Buffalo, Rochester and Pittsburgh Railway has sent out a lecture-car for the purpose of instructing the firemen along the line in the art of stoking.

Mr. E. G. Kinyon is in general charge of the car.

The lectures are given morning, afternoon and evening. They begin with a somewhat elementary explanation of the process of combustion and conclude with a lecture il-

lustrated by stereopticon views of the fire-box as it is seen under various conditions.

All the so-called "diseases" of a fire are thus illustrated and explained, including the fire that is over-fed and poorly stoked, fires in which clinkers have formed, and the ideal fire burning without smoke because sufficient air is supplied to give the oxygen necessary for combustion.—*The Railroad and Engineering Review*.

An engine wouldn't be any use if it couldn't run backward. Don't mind a reverse.—Philosophy of a Hog Head.

PRESIDENT OF THE LINE.

BY JOHN WELLSLEY SANDERS.


The Master Mechanic Meets an Old Acquaintance—and Gasps.

SYNOPSIS OF PREVIOUS CHAPTERS.

VINCENT WILSON, having risen from the apprentice shop to mechanical superintendent of the Mainland System, has discovered what he believes to be a leak in the affairs of the company, and criticizes to President Harvey Jones the action of the board of directors on voting \$20,000 for certain purchases. Wilson visits a former employee of the Mainland System, "Doc" Ferguson, who imparts to him the information that Kaintuck, a former friend of both, had developed leprosy and been sent to the leper settlement at Molokai. "Kaintuck" was betrothed to a beautiful girl, Meriel Planquette, whose address Wilson is very desirous of obtaining from "Doc." "Doc" refuses to give this information unless Wilson pays him \$5,000. Meriel Planquette, after "Kaintuck" had been sent to the leper settlement, married John Toylmore, formerly New York representative of the Mainland System, who, shortly after their marriage had been killed in an automobile accident. She now has many suitors, among them, Bertrand Clivers, an elderly broker, and Jimmie Winters, young and impetuous. She loves the latter and promises to marry him, but is won over at the very last moment by Clivers and leaves with him for Europe.

CHAPTER VI.

The Woman He Loved.

O Meriel Planquette became Mrs. Bertrand Clivers. And Jimmie Winters made up his mind that he would be revenged. It mattered little to him when, where, or how—but he was going to be revenged. Clivers would suffer for deliberately stealing the woman he loved.

But Mr. and Mrs. Clivers had not gone to Europe. That was merely a bluff. It was simply intended to put Jimmie off the track. They took a spacious suite of rooms in the Continental—a great, glittering hotel on Fifth Avenue.

It was announced in the papers to the effect that "Bertrand Clivers, the eminent financier and promoter, who recently married the widow of the late John Toylmore, after a charming romance, had taken rooms at the Continental Hotel, where they would entertain extensively."

Two days after this notice appeared,

Jimmie, with more courage than he ever imagined he possessed, called at the Continental for the express purpose of seeing Meriel.

That love for woman that no man can banish, when once it gets hold of him, had laid its tentacles on Jimmie's heart. He was still madly, blindly, deeply in love with the woman, notwithstanding the miserable manner in which she had treated him.

He was still mad in his infatuation. It would not wear away. No other thought seemed sufficiently powerful to crush it within him.

He must see Meriel—he was going to see her, and tell her that he still loved her, and that her husband had married her for no good purpose.

He approached the massive entrance of the Continental—his courage increasing every second.

The avenue was bright with the morning sunshine. Hundreds of gay, prosperous New Yorkers were strolling along the sidewalks—for Fifth Avenue is ever the favorite place of promenade for the New

Began in the May Railroad Man's Magazine. Single copies, 10 cents.

Yorker—and, on a fine day, it is one of the rare sights of the world.

Carriages, gay with many liveries, and smooth-sliding automobiles, filed up and down, guided in the proper direction by the well-knit, military-looking mounted police that constitute one of the most prized departments of the metropolis—the traffic squad.

Jimmie Winters wondered if all the people that he saw were as unhappy as he. He wondered if any other man had nestling in his heart so cruel and hurtful a thorn.

Just then his eye was arrested by a huge orange-colored touring-car that glided up to the entrance of the Continental.

It was hardly fifty feet from him.

The chauffeur brought it to a halt.

One of the liveried attendants of the hotel pirouetted down the steps and opened the door of the car. Meriel stepped out.

She was arrayed in all the gorgeousness of the world of fashion. From her dainty shoes to her hat, she was a thing for all women to envy and all men to admire.

Jimmie hastened his footsteps. Here was his chance. Fate could not have treated him more kindly.

In another moment he was by her side.

"Meriel!" he said tremblingly. "Meriel!"

She turned full upon him. The hotel attendant who was carrying her cloak advanced as if to protect her.

But there was something in Jimmie's face that told the attendant that he was not so much an interloper as his action might indicate.

Meriel turned several colors in as many seconds, and drew herself up in all her haughtiness before she spoke.

"What do you want?" she asked.

"I want to speak to you, Meriel."

"Mrs. Clivers, please."

Her tone indicated her cold-blooded imperiousness. Clearly, she was the woman who would marry for money, who would love for money, who would give all that was nearest and dearest to her for money.

"I want to speak to you, Meriel," said Jimmie. "I want to speak to you. I want to tell you—"

His voice was trembling. She feared that he would break down and create a

scene—and it would never do for her to be the central figure in a Fifth Avenue sidewalk tragedy; especially as she had reaped the goal of her desire—marriage to a real millionaire of the New York world of finance.

"Come in," she said softly.

Jimmie obeyed. He was glad that she seemed to be showing some degree of common sense. Once inside the hotel, she led the way to the oriental room—a heavily furnished, heavily perfumed, dimly lit parlor near the main office, where two people could hold a quiet conversation in a quiet corner without being disturbed by prying eyes.

Meriel picked out a large divan hung and surrounded by a mass of East Indian and Turkish trappings. She sat in one corner, partly hidden from any observer, and Jimmie took a seat by her side.

"Jimmie, what did you mean by accosting me in that way?"

"I couldn't help it, Meriel—I had to see you—I just had to."

"How did you find out that I am stopping at this hotel?"

"I read it in the papers."

Meriel brightened and smiled faintly. Clivers was a good press-agent, anyhow.

"How could you have done it, Meriel? You know that I love you—you promised to marry me—you knew that my whole life was centered on making you my wife. How *could* you, Meriel?"

The woman smiled. It was the sardonic smile of cheap contempt.

"Oh, Jimmie," she said finally, "I didn't take you seriously."

"Didn't take me seriously? After what I said—what I did! Great Heaven, Meriel, what do you call 'seriously,' then?"

"Come, Jimmie, don't be an angry boy. You will get over this sooner or later. Some nice girl will come along, and you will marry her and make her a good husband."

His hand resting on the divan was close to hers. She stroked it as one would pat a pet dog.

She arose as if to go.

Jimmie rose, too, and confronted her.

"Meriel," he said, with some firmness, "where are you going?"

"Jimmie—you fool! I must dress for luncheon."

He caught her by the wrist. His grasp

was tightened by his anger. His fingers seemed to press into her flesh like the blades of a knife. He hurt her. His face showed that he meant to hurt her—but she knew better than to cry out.

"Jimmie—don't!" she muttered under her breath.

"Meriel," he said, with more determination than she believed he possessed, "there will be no luncheon for you until you have heard me.

"You let that vile brute steal you from me! Yes—steal you from me! The dog stole you from me—and—by all that is good, he has got to pay the penalty!"

He gritted his teeth in the intensity of his meaning. He weighed each word carefully, in order to bring out their full impressiveness, but spoke hardly louder than an ordinary whisper. The other occupants of the room had not the slightest indication that anything out of the ordinary was happening between them.

"He stole you from me, Meriel—you whom I love and worship—and he is going to pay for it! I will have revenge even if it takes my life. I can't tell you how much I hate him! I can't tell you how much pleasure it will give me to see him suffer!"

He released his grip. Meriel looked at him for a moment. If she grasped the fact that his determined face showed only too plainly that he meant every word he said, she did not give any indication.

"Good-by," she said. "I must not talk to you any more. You're a bad boy, Jimmie."

She walked away. Jimmie's eyes followed her until she had turned the corner of the hall and vanished. Indeed, she was beautiful. Such a face, such a figure, such wonderful eyes, such a fascinating manner, thought the young man—just the sort of woman worth fighting for—and fight he would.

"I wish I didn't love her so," he said to himself, as he stepped out into the main office of the hotel.

CHAPTER VII.

The Conversation in 635.

JIMMIE WINTERS dropped into one of the huge leather chairs that adorned the corridors of the great hotel-

ry. He wanted to think—he wanted to be alone to plan his revenge.

The more he thought, the more he became convinced that he would never falter even in the slightest degree from the course of his revenge when he had it thoroughly planned.

"Even if I kill him," said the boy to himself, "I shall not care. Many a man has killed for the woman he loves. But, no—that would be cowardly."

He sank back in a reverie, heedless of the people who passed to and fro. Just why he waited in the hotel he did not know. It did not occur to him to do anything else. Some inward force told him that he had better stay there for a while. Something might turn up.

He might see Meriel again—and he might see her husband.

If the latter, he would walk straight up to him and—

He arose and walked up and down the long hall, lined with its rich and easy idlers, many of whom were gathering for the luncheon-hour. To the preoccupied youth, they were only automatic chatter-boxes. If there were any pretty women among them, Jimmie did not notice them. He strolled up one corridor and down another, until finally he reached a little alcove off the main hallway.

In a corner of the alcove two men were sitting. Their heads were together, and they were talking in an earnest whisper, looking furtively about now and then, as if fearing an intruder.

One of the men was Vincent Wilson, the other was Tom Tracie—the star sleuth of the detective bureau of the New York police department.

Just what drew Jimmie Winters to be interested in them he hardly knew. Trying to appear as disinterested as possible, he took a seat near them, pulled a letter from his pocket, and pretended to read.

The other men looked at him for an instant, and then, assuming that he had no interest in what they were saying, resumed their talk.

"You say she is living here?" said Tom Tracie to Vincent Wilson.

"Yes; I am sure of it," replied Vincent Wilson. "I've traced her to this place."

"What is her married name?" asked the detective.

"Clivers," said the younger man.

At the sound of the name Jimmie gave a sudden start—so sudden, indeed, that it might have frightened the two men had they not been particularly interested in their own conversation.

They talked at length, but although Jimmie heard an occasional word or two in which certain large sums of money and "graft" and "theft" were mentioned, he could gather nothing that would give him a lead as to the direct nature of the subject of the two strangers.

Still, his keen intuition told him that it was in connection with Meriel's husband.

He must make the acquaintance of the men.

It would not do to thrust himself upon them—that would be undiplomatic.

He would wait until the proper time came. He would follow them and find out where they went, and call on them at their offices, if possible. They finally arose to go.

Jimmie noticed them as they shook hands. The elder man said, so loud that he could plainly hear:

"I am sure that we will get at the bottom of this."

They walked down the hall together, stopping once or twice to renew their talk, and when they reached the main street door they parted.

The detective turned down the avenue. The younger man went to the hotel desk, and nodded to the clerk, who handed him a key. Then he turned to one of the elevators and went up-stairs.

There was nothing for Jimmie to do now but ask the clerk the man's name. He walked up to the desk, and said hastily:

"Will you please tell me the name of that gentleman to whom you just gave his room key?"

The clerk, alive to the numerous agents and grafters and runners in for gambling-places, who frequent all large hotels, forestalled Jimmie by saying that it was not the policy of the hotel to give the names of its guests to strangers.

"I should like to know particularly, for I think that I can do him a service," said Jimmie. "My name is Winters," and Jimmie handed the clerk a card reading

"Mr. James E. Winters, Walter F. Winters & Co., Brokers, New York."

"I am Mr. Walter Winters's son," said Jimmie, to clench his identity.

And clench it he did. The name of Walter Winters stood for all that was A1 in Wall Street, and the clerk knew it. Besides, the firm had branch offices on the foyer hall of the hotel, and it would have been an easy matter to have proven the identity further.

"That's all right, Mr. Winters," said the clerk. "The man to whom you refer is Mr. Vincent Wilson. He is a railroad man connected with the Mainland System."

"Could you arrange for me to meet him?" asked Jimmie, recognizing the fact fully that his question was somewhat nervy.

The clerk was not amiss to do the well-known broker's son a favor. Certainly, there could be no harm in it. Jimmie Winters was a young man of great respectability, and, furthermore, thought the clerk, any one could not go wrong doing a favor to such a man.

"I will certainly introduce you if I happen to see him around," said the clerk, "but"—here he hesitated a second—"why not send up your card? I will phone to him and tell him who you are."

"I wish you would," said Jimmie. "I will consider it a great favor—and I shall be glad to return it some time."

"Not at all, Mr. Winters," said the clerk.

He went into the private office to telephone. Jimmie waited outside, trembling in every nerve—he knew not why.

Presently the clerk emerged.

"Mr. Wilson will be very glad to have you go up to his room. It is No. 635, on the sixth floor. Front," he continued, calling to a bell-boy, "show this gentleman up to 635."

Jimmie tried to offer thanks, but the clerk politely bowed and was gone.

Three minutes later Jimmie knocked at the door of 635.

Vincent Wilson opened it, and bade him enter. Wilson recognized instantly the young man who had taken the seat in the alcove so close to Tracie and himself, and broke the ice of the situation by saying pleasantly:

"I believe I saw you sitting down-stairs a short while ago, Mr. Winters."

"Yes," replied Jimmie, "and you must pardon me when I tell you that I overheard a part of the conversation between you and your friend. That is what brought me here. I don't know but I may be of some service to you."

"I hope so," said Wilson in the same pleasant manner that always characterized his conversation.

"First of all, let me tell you who I am, and why I am here," Jimmie began.

Recognizing that he was the aggressor, so to speak, Vincent Wilson had the right to a perfect and thorough acquaintance of the man who had intruded on him. So he told him all about his family, as well as himself, and added that if Mr. Wilson had any doubts as to whom he was dealing with, all he had to do was to step down-stairs into the branch office of Winters & Co. and satisfy himself.

Vincent Wilson was satisfied. He invited Jimmie to a seat, closed the transom over the door, evidently to indicate that he wanted secrecy. He was as anxious to hear what Jimmie had to say as the young man was to tell it.

"What did I say that aroused your interest, Mr. Winters?" asked Wilson.

"You spoke of a woman—Mrs. Clivers."

"Do you know her?"

"Yes," replied Jimmie, with just a breath of hesitancy. If a blush slipped onto his cheek, Vincent Wilson did not notice it.

"Well," said Wilson, "since you have taken me into your confidence, I will take you into mine. The only agreement that I will ask regarding what I may say to you is this: In the event of our conversation turning out to be absolutely useless to both of us, we agree never to divulge to a third party what we may say here."

"I agree to that heartily," said Jimmie.

Both men shook hands to seal the compact.

"I am employed by the Mainland System," began Wilson, "and, in my official capacity with that railroad, I discovered certain things that led me to believe that some one connected with the road is taking money for his personal use. To be plain, some one has been grafting."

"My God!" exclaimed Jimmie, wondering how Meriel could be connected with such a charge.

"I brought my suspicions before the president of the company, after convincing myself that if I could find Meriel Planquette I could secure from her—under pressure, perhaps—certain information that would lead to the culprit."

"Miss Planquette was a poor girl in our town, and was engaged to a young fellow now in the leper settlement at Molokai. Shortly after he went there she fell in love with a man, who showered her with jewels, and disappeared."

"There is an old fellow out in our town who keeps tabs on her pretty closely for some reason or other. His name is 'Doc' Ferguson. I tried to get him to tell me Miss Planquette's address, but he demanded five thousand dollars for the information."

"Gee whiz-z-z!" said the now startled and surprised Jimmie. "That was quite a price!"

"I guess that Ferguson saw that I needed his information badly, and he put his price at the top notch."

"It isn't possible that she—that she—could have—"

Jimmie didn't attempt the rest of his thought. It was too much to think for an instant that Meriel—his Meriel—could have been mixed up in a shady matter.

"I don't say that she had any direct connection with the theft; but I do think that she could give some information that would lead to the possible capture of the thief."

"Do you mean to tell me that she may have been mixed up in a crooked transaction, or the friend of any one whom she knew to be a thief and a grafter?" asked Jimmie, with considerable force, hardly satisfied with Wilson's answer.

"To the first part of your question I would answer, 'No'; to the second part I would say, 'I do not know.'"

There was a pause. Jimmie was thinking with set face. Wilson finally said:

"Tell me your interest in her, Mr. Winters. Remember we are speaking in the strictest confidence."

Jimmie did not answer.

"You very kindly gave me the most satisfactory reference as to your stand-

ing," Wilson continued. "If you have any doubts regarding me, you are at liberty to wire at my expense to the president of the Mainland System—Mr. Harvey Jones. Our home offices are in Louisville, Kentucky."

He waited a moment. Then Jimmie said:

"Thank you, Mr. Wilson. There is no occasion to do that. I am satisfied as to your position, and I believe in you. I—I was engaged to Mrs. Clivers. You will respect my feelings, I know, when I tell you that I am deeply in love with her, and she seemed to be in love with me."

"Our wedding day was set. I had gone home to Boston, where my mother lives, to break the news to her. When I returned to New York, a few days later, and called at her apartments, I was told by her butler that in the meantime she had married Clivers."

"Now," said Jimmie, rising, and bringing his hand down on a near-by table to add every possible emphasis to what he was going to say—"now, Clivers is the man I want to get even with! He stole the woman I loved when she promised to marry me! I hate him with a hatred that is something awful, Mr. Wilson—and I want to have my revenge!"

If there was the slightest quota of doubt in what Jimmie had just said, it was shattered by the intensity of his expression. Vincent Wilson saw in the set and rigid muscles of the young man's face that he was determined to make good his threat.

"Did you always know her as Meriel Planquette?" asked Wilson.

"When I first met her, she had just moved to New York. She was then the wife of a man named John Toylmore, who was killed in an automobile accident."

"What kind of a chap is this Clivers?" asked Wilson again.

"I've got him sized up as a fake promoter and a paper capitalist. He makes money, but just how nobody seems to know. We wouldn't carry his account, and I doubt if any respectable brokerage firm in the city will have anything to do with him. He's a big, burly man, well dressed, and he certainly has plenty of money."

"This interests me, Mr. Winters. I

want to get a look at this man. He is staying here with his wife. Let's go down and get some luncheon. They may be in the dining-room now."

CHAPTER VIII.

Meriel at Luncheon.

VINCENT WILSON and Jimmie Winters went down-stairs, and found an unoccupied table at a far end of the large dining-room, where most of the guests and those who regularly lunched at the Continental took their mid-day meal.

The table was in the remotest corner of the room, but so situated that Wilson and Winters had a complete view of the entire room.

They ordered a light repast, over which they lingered for an hour and a half, during which time they reviewed every detail of the case as they were interested in it. At the end of their talk, they were on an excellent understanding.

They trusted each other implicitly, and, while Vincent Wilson did not take too much to heart the value of the revenge that Jimmie would have on his enemy, he was willing to help his young friend. And Jimmie was willing to give Vincent every possible assistance to learn the source of the leak in the Mainland System's finances.

They were about to give up their quest when Jimmie, who had been scanning the dining-room entrance, suddenly stopped talking.

"There she is now," he said, touching his companion's arm and indicating the dark, handsome, well-dressed woman who was entering and asking the head waiter to show her a table.

Wilson saw her. He would never have recognized the graceful, gentle, well-groomed woman as the poor girl whom he remembered only indistinctly in Louisville.

"By Jove, she does look fine!" he said.

But where was Mr. Clivers? Apparently she was alone.

She was unaccompanied, much to the discomfort of the two men. She crossed the room under escort of the head waiter and took a table some distance from them.

"Now, remember, Winters, there is

only one thing that I ask, and that is that you will arrange it somehow so that I can see Mrs. Clivers. I only have eight or ten questions that I want to ask her."

"I will do the best I can," said Jimmie. "Suppose that I go over and talk to her now?"

"Clivers may be in the hallway, lurking around," suggested Wilson.

"Oh, I'm not afraid of him," Jimmie replied, smiling.

His plan was to get Meriel in conversation, and then call Vincent Wilson to her table under the guise of an old friend.

Meriel was not startled when she looked up and saw Jimmie by her chair. Indeed, she was too good an actress, and too diplomatic, ever to let a situation get the best of her. She greeted Jimmie as if he had never had the slightest difference with her.

Jimmie was the first to speak.

"Meriel," he said, "I want you to forgive me if I hurt you this morning. You must really overlook it. I have worried about you—and I am sorry."

"Don't mention it, Jimmie," she said. "I'm glad to see you sensible again, and I'm sure that we can always be good friends."

Then she invited him to sit down. A waiter drew up a chair.

"May I ask where the 'better half' is?" he asked.

"I just said good-by to him for a while. He has to run over to Louisville for three or four days on business. It is a place that I do not care much about, so I stay at home," and she smiled as she spoke.

"My," said Jimmie, with feigned surprise—"fleeing from so beautiful a bride already?"

Then followed a lot of insincere small talk, for neither meant a word that was said. Meriel had married the pompous Clivers for his money. She knew it—but she veered from talking about it. In her heart she had all of her old love for Jimmie, but she wanted to smother it as much as possible whenever he was around.

As for Jimmie, the method that he was about to pursue was being slowly thought out and carefully planned even as he spoke to her. If he could bring to her, in some way, the proof that Bertrand Clivers was not all that he represented

himself to be—merely an impostor—she might be induced to divorce the financier, and return to him.

Jimmie looked around and saw Vincent Wilson still sitting at the table.

"There is a friend of mine at a table opposite," said Jimmie. "May I call him over and introduce him?"

The tension of talking commonplaces to Jimmie had begun to wear, and Meriel, glad of any interruption to change the subject, acquiesced.

Jimmie, with his customary gallantry, arose, bowed, walked over to where Wilson was still sitting, and returned with the railroad man. After the introduction, and when the three were seated, Jimmie broke the silence:

"Mr. Wilson is a friend of mine from Louisville."

"Oh, indeed!"

"Yes," Vincent broke in, "Louisville has been my home for a number of years. I went to school there."

"Indeed," repeated Meriel.

"I hope to go there some day," said Jimmie. "I am told that it is a beautiful city."

"Indeed," said Meriel again. "Have you been to any of the theaters here since your arrival, Mr. Wilson?" she continued, turning to the railroad man and somewhat anxious to change the subject from Louisville.

Wilson said that he had not. Meriel finished her last sip of tea. Jimmie precluded a lot of dry-rot conversation if they sat there any longer, and was greatly relieved when Meriel rose. Wilson did not ply her with any questions.

Just as they were saying good-by, Jimmie asked Meriel when Mr. Clivers would return from Louisville. It was not that he cared to know. He would probably have been delighted if Mr. Clivers had met his death in Louisville. He asked it only as a matter of the most abject politeness.

"Sunday night," replied Meriel, with her sweetest smile. "He arrives here on the seven o'clock train."

She entered the elevator, and the men were alone.

"Thank Heaven you asked her that last question," said Wilson. "How did you know that I wanted to know when Clivers would return?"

"I don't know why I asked her that particular question," replied Jimmie. "It seemed to be the only thing that I had in mind at the time. Somehow or other, it was mighty hard to talk to her."

"Will you meet me here Sunday night when Clivers arrives?" asked Wilson.

"Surely," said Jimmie, "but don't ask me to introduce him to you. I don't want to insult you."

"I don't want to meet him," said Wilson; "I only want to see him. —For some reason or other my intuition tells me that I must get a look at this man. I will have Tom Tracie, of the detective bureau, with me."

"All right," said Jimmie, "we three will meet right here at seven o'clock sharp on Sunday night."

CHAPTER IX.

The Late Arrival.

THEY parted, and Vincent Wilson hurried down to the Metropolitan Police Building, where he found Tom Tracie. To the detective he related all that happened that afternoon.

Tracie listened eagerly. He was perfectly willing to make the engagement for Sunday evening, as he had been assigned to the case to assist Wilson. But he couldn't see what good could be gained by getting a peep at Clivers.

"But Wilson insisted that he had a 'hunch' that Clivers should be looked over. 'And when I get these hunches,' said Vincent, 'something usually comes of them.'"

At seven o'clock Sunday night the three men, after a jolly dinner at the Continental, at which Jimmie made a most agreeable host, found a comfortable lounge in the main hall of the hotel. Inquiry proved that the train from Louisville—the fast express, on which passengers traveled who wanted to make time—was some fifteen minutes late, and the trio settled down to kill time.

As the moments wore on, Jimmie now and then took out his watch with some uneasiness.

Maybe Clivers wasn't coming that night; maybe Meriel had made a mistake, or was only fooling them. Perhaps, after all, it was a fool's errand on which they were bent.

It was nearly thirty minutes past seven, and Clivers had not arrived. Jimmie was clearly nervous; but the other men, more used to meeting obstacles, only laughed at his uneasiness.

"I will go to the clerk and ask if the train is any la—"

Jimmie did not finish his sentence.

Clivers was entering. Two bell-boys rushed toward him, grabbed his valises, and made for the elevators. They knew Mr. Clivers was already registered, and did not escort him, as is customary, to the clerk's desk.

"There he is now," said Jimmie, as the portly arrival appeared. There could be no mistake. A tall man he was, perhaps close to six feet, with a very protruding stomach and particularly large feet, on which he was not very steady because of his terrible bulk. His face was large and adorned with a heavy, black mustache. If he had removed his hat, it would have been observed that he was possessed of a heavy shock of hair which he kept closely plastered to his head.

"Where?" asked Wilson.

"There," replied Jimmie—"that big man with the heavy mustache."

"That," replied Wilson—"that! Why, that's—that's—" He seemed to be gasping. "That's Blander!"

"Who?" asked the other men in unison.

"That's Blander," repeated Wilson. "Wait; I will go and speak to him."

That night Vincent Wilson wired to Harvey Jones, president of the Mainland System, at his private house in Louisville:

Have a clue. Must remain here a few days longer. Will return Tuesday night.

(To be continued.)

A side-track is a mighty useful thing, but don't stay with it too long. Kick for running orders.—An Old Con's Con.

James H. Lawrence, Oldest Railroad Wage-Earner.

BY NATHAN E. BURKE.

NINETY years old, but still at work in the roundhouse, James Harvey Lawrence, a veteran wiper of the N. Y., O. & W., enjoys the distinction of being the oldest regularly employed railroad man in America.

There may be older railroad men in this country, and, if so, we should be glad to hear from them. However, our sources of information lead us to have little doubt that to James Harvey Lawrence alone belongs the title of "Patriarch of the Track."

The ranks of the old guard of railroad men who were boys when the first locomotives went wheezing along their wooden rails are growing thinner, year by year, but Time has been kind to many of them, and the healthy out-door lives they led have kept them well and happy while their less hardy brothers have been forced to answer the final call.

Ran a Foot-Race with the First Engine on the Erie When a Boy, and Has Since Established a Roundhouse Record of Wiping a Thousand Miles of Locomotives.



AT the age of ninety, James Harvey Lawrence, a wiper on the New York, Ontario and Western, stopped work long enough one day to figure out for me that he had polished up locomotives enough to make a solid train reaching from New York to Chicago. Having kept a record of them, he was able to arrive at a total figure of 70,640, and any one who cares to verify his calculations may readily do so. I was content to take it on faith, but he was not satisfied with that, and insisted on showing me his figures. You can work it out for yourself, but you should have no trouble in taking my word for it when you learn that here is a man who saw the first locomotives built, yet is still busy at his work of slicking them up.

Within the period of Lawrence's life

the railroad has developed from practically a small line to one of great value. He is probably the only man living who saw the odd little trains of the early thirties, and is still up and busy every morning.

His position in the railroad world is so unique, he has spent so many toiling years at one of the most wearying tasks that falls to the lot of those who serve the mistresses of steel, that I went to Middletown, New York, where he has lived all these years, to have a talk with him and learn with how much courage a man can face his day's work in his ninety-first year.

Patriarch of the Roundhouse.

At his age one might reasonably expect to locate him at the warmest spot behind the stove, or sitting in the sun

on the sheltered side of the house, but when I found him he was at work in the roundhouse, with a reasonable expectation of making his string reach to Omaha, or at least, Des Moines.

Phil Mitchell, the yard boss, and "a white man" Lawrence told me feelingly, took me over and introduced me in person. At the moment he was passing around an engine with remarkable spryness.

"Hallo, pop," Mitchell hailed him jocosely, "the boys tell me you're thinking of marrying and settling down."

The old man stopped, and, shaking his head with the saddest expression in the world, solemnly assured Mitchell there was nothing in it.

"You don't want to believe all you hear, Phil," he commented.

"Well, it's mighty funny," Mitchell continued, "but I notice you see all the pretty girls as they go by."

"Oh, I didn't say I couldn't appreciate a pretty girl," the old man laughed, "I don't expect I'll ever be too old for that."

From these pleasantries you might gather that he is a young man for his years, but that is not so. He is all of his ninety years, and they weigh down on him the more on account of the hard work he has done. But, in spite of it, he moves around for hours at a time without sitting down to rest.

"See this one," he said, pointing out an ordinary freight-engine.

"When I first looked on a railroad you could have put all the locomotives in the country inside her boiler. But I didn't begin wiping then. Why, it was hardly more than yesterday that I broke in at the railroad business. I was sixty years before I ever wiped an engine."

"Most men would be ready to quit about that time," I ventured.

"I wasn't so young myself," he went on, "but I had to work just the same. I had been a wheelwright, but when they began to build the big shops thirty years ago, it cut out all of the independent blacksmiths, and I had to turn to something else. This was the first thing I struck, and I have been at it ever since.

"And I have wiped some, too," he said proudly. "My record shows a list I'd like to see duplicated. Until I was

eighty-two years old I was boss wiper, and turned out ten engines a day. Now I'm too old for that, and some one else has to do it, but while I lasted I was a worker. Ask Phil. I was an old man when he was only a boy, but when I was seventy I could do more work than at any time in my life."

Races with First Locomotive.

The Erie, as well as the New York, Ontario and Western, passes through Middletown, and I knew that the Erie had been built through that section when there was hardly three hundred miles of track in the country. I asked him if that was where he had first seen a train.

"I lived eight miles from here," he replied, "and I was a fairly well grown youth, near twenty years old, before the Erie was built. Why, I can remember the days before steamboats were at all common. I remember in particular a trip I took with my grandmother from Newburgh to New York, down the Hudson in a sloop, and it took us three days. So you can guess everybody for miles around turned out when the first train came through. Anything that could run ten miles an hour and keep it up, unless something happened to it, was wonderful, perfectly wonderful. When I think about it now it makes me laugh.

"That engine was surely a comical sight to see squeaking along, but it didn't seem that way to us then. Why, it wasn't much bigger than a sewing machine, but it made a powerful lot of fuss about itself. We were country boys from the backwoods, and, of course, we had to go down the track to watch for the first train to come in, while our elders stayed at the station and waited. It was a pretty long wait, too, as it was so hard to keep the train on the rails.

"Finally, we must have got two miles down the track before the engine came in sight. When she was pretty near up to us, we started to run ahead, and the engineer steamed up to get enough speed to run us off the track. But he couldn't do it. We turned around and mocked at him, and only the little fellows had to get out of the way."

The old man seemed to relish the recollection.



JAMES H. LAWRENCE.

Drawn by H. M. Bunker from a photograph by the Times-Press, Middletown, N. Y.

"It was a long time ago, and I don't remember very well," he continued, "but I can still see that little squeaking thing swaying from one side to the other, about to bust itself scaring up enough speed to drive a parcel of boys off the track.

"Off Again, On Again."

"Just before, or just after, we reached the station, the rails spread, and down went the engine between them in the mud. You couldn't believe they ever run trains on such rails as those. They were just strips of wood, the size of a scantling, fastened along in a line without any cross-ties to keep them the right distance apart.

"When you looked down a stretch of track you could see that it was a pretty crazy road to put a train over. But, even if they did go off the rails, it didn't make any difference. They never had enough speed to hurt anything, and three or four men could just about pick up the

engine and set her back on the rails after some one had kicked them into place.

"That kind of railroading didn't last long, and it wasn't a great while before they had ballast in the road-beds. When I took a ride for the first time, a few years later, we didn't get off the track more than half a dozen times in fifty miles. At that time they were still using wooden rails, with iron straps along the side, but there were cross-pieces serving the purpose of ties.

"When you get on a train now, you don't look for anything to happen, and you're pretty sure of getting in somewhere near on time, but a ride on a train in those days was a different matter. The coaches were hardly bigger than wagons, and the engineer could shout his orders to the conductor from the back of the train.

"But what gets me is that those little engines, with boilers no bigger than a barrel, used to make a heap more fuss

than these big fellows here in the round-house. They would come howling over the hills like a band of Indians, and you could hear them puffing on the grades for miles."

A Panther with Wheels.

Mr. Lawrence didn't tell me this story, but it happened in the same part of the country. There was an old trapper on the Delaware, who lived by himself and carried on his operations in the hills, so that he did not see the rails laid, and knew nothing of the Erie. Vaguely he might have heard of railroads, but he had no visual knowledge of them. Every day about the same time he began to hear panther cries on the other side of the hill, and each time he stalked them to the creek, where he lost them.

Day after day it kept up, and he set traps until the woods were full of them, but with no result. The animals' strange conduct and few scattered calls in the middle of the day mystified him, and he decided to be on hand to pounce upon it the next time it let loose.

While lying in wait on the hillside he heard the panther far down the creek, marking its progress with agonizing cries that increased in shrillness as it approached. Any one who has ever heard a panther and listened while its voice ran from deepest pathos to a wild demoniacal laugh can understand exactly how he felt.

With his old flintlock primed, head down, sprinting through the underbrush to get within range before the beast got the scent, he did not have time to analyze the notes in the panther's cry, or he might have thought it had a strangely metallic ring. Instead, as the cries came nearer, he hurried the faster, and, seeing what appeared to be a clear space ahead, he leaped out and opened fire on the strangest monster he had ever seen. But, before he could reload, it knocked him into the gutter beside the railroad track.

When I remembered that Lawrence

was a grown man when this happened, it was borne in on me how old he really is.

"Why do you keep on working at your age?" I asked.

The lids of the old man's eyes quivered, and I thought for a moment he had been hurt by my brutal question. But it was not that—he was thinking. The idea had never been presented to him so pointedly, and it took a minute to frame an adequate answer.

"There's more than one reason," he finally said. "All my life I've had to help my relations, and it took every cent I've laid by. So, when the time came that I couldn't earn so much as a younger man, I had nothing saved, and I simply had to keep on working."

Keeps On Despite Years.

"It seems to me," I interrupted, "that they might have helped you then."

"They would," he admitted, "if I'd let them. I live with my granddaughter, and she keeps wanting me to stop, but you see I wouldn't be happy, and that's what I tell her. After you've worked every day for about eighty years, you can't stop, and that's all there is to it. I wouldn't know what to do with myself with so much time on my hands.

"Here I am perfectly happy. I know this place so well, and I am so used to it now that I miss it more than you imagine when I'm sick. You see, it's pretty much all of life that I have left. When evening comes, and I am tired, I sit at home and read the paper and go to bed early."

"But don't you ever feel in the morning that you'd like to rest a little longer?"

"I'm not as fresh as I used to be," he confessed, "but I have noticed this," he added confidentially. "When a man has worked until he is pretty old, and quits, he doesn't last long. Now, I want to live a few years yet, so I think I'll just peg along until I can't do anything any more."

With that he turned and left me and went back to work.

Cold cylinders haul no tonnage; neither do cold feet.

—Letters to a Steam Producer.

TAMING BAD BILL GOODE.

BY EMMET F. HARTE.

This Time Honk and Horace Purify the Sacred Precincts of Valhalla from the Taint of Trespassers.



THE completion of the spur connecting Valhalla with the main line at Millardsville was quite an event. We had a half-holiday and speeches. The company put a brand-new, splinterfied, gasoline motor-car in commission on our branch. It made two round trips a day.

Valhalla became a station, and I became station-agent. It was the easiest job I've had since the Spanish War, when I—but post mortems are odious, according to my favorite author. Between the busy hours when the motor was due out and in, I spent my strenuous moments in catching grasshoppers and swiping at the darkling pools of the purling creeklet for trout in the Mystic Hills.

We had the medicine-house brought over for our own accommodations, and life loomed large and pleasant in the offing. It seemed a palpitant strain of delightful melody to me. I gained fifteen pounds the first thirty days.

Honk pretended to be very busy; I guess he was; Honk never was otherwise. He was like a peanut-vender trying to operate six corn-poppers at the same time.

Whenever anything went wrong with any of the multitudinous array of machinery which was being unloaded and set up daily around Valhalla, Honk was the man to adjust it. He was a tinker from Tinkerton, was Honk.

When a motor jammed, a spark-arrestor went to sleep on its beat, or a centrifugal pump got the colic, who fixed it? Honk.

When plumbing leaked, wires refused to tote fair, or bearings squeaked, Honk was the physician.

When he wasn't cobbling up the motor-car, which had a penchant for breaking down without the slightest excuse, he was installing lights.

When he wasn't surveying, charting grades, or putting in a new factory of some kind, he was piloting some of Dade's would-be investors around in a halo of hot air, or dissuading some undesirable character from making Valhalla his final home.

Honk constituted himself a strict censor over everything that came in, whether declared dutiable or not. He claimed a clairvoyant sense of discernment; could spot a person of questionable attainments farther than a turkey buzzard could smell ripe meat, he said.

All this he told me during the evenings while the phonograph played "Chicken Chowder," and he whiled away the time perfecting a new-fangled typewriter that would add, subtract, multiply, extract the greatest common divisor, and match you for the cigars.

What was it I started to tell? Oh, yes, about bad Bill Goode. I'll recount about how William Goode happened to light in our pleasant midst. He came at an inadvertent moment.

One night, down to the power-house, which was now running all fine and dandy, and was Honk's particular hobby, the man that hostlers around, or did hostler around (he isn't any more), the gentle soul whose duties were to keep the brass-work bright and shining, and the cobwebs from hanging down and getting in the way, carelessly and without due tact and discretion, probably while dreaming of the dear old days when he toted a hod, stood a slicing-bar, or some such emblem

of office, against Honk's biggest dynamo, whereof things happened.

Red, green, blue, and variegated things, and the roaring as of mighty deeps loosened and up-ended. The power-house went out of business so quick that the annunciator broke its arm getting back to taw, and the wheel-base fell afoul of the doo-dad before the magneto could whirl and annihilate the annihilator.

At least, that is my morbid conception of the disaster, gleaned from hearsay. You can take it or leave it. I wasn't present when the thing occurred.

They wigwagged for Honk with the siren. Ever rewind or rewire or rejuggle an armature, or whatever you call it? I'm no electric sharp, or I might be able to speak technically on the subject, and then nobody would understand me.

I know enough about the crazy stuff to drop a zinc into a jar or to tell when I've burned my thumb on a hot end—that's all.

The whole line of dope is cards and spades for Honk, though. He knows just where to catch hold and not get stung. It's all coconut candy for him. It took a sixty-hour shift for him and his little toolbag, however, in this instance.

As a patriot and a promoter, I refrained from fishing for the next two or three days, and checked in the visitors during Honk's absence. That's how the two-times before mentioned Goode party got by the guarded gate.

Honk said afterward that he would have nailed him as a crook of the first water before the motor had got done squealing for town, but that's as may be.

The gentleman appeared civilized. He was dressed modestly in male apparel. His shoes, I noticed, needed a shine several days overdue; his collar was tarnished, and cuffs he had none; but he was sober. His hat was broad, black, and parted in the middle. He carried a traveling kit that might have contained either burglar tools or a cook book, so far as I knew.

He walked unexcitedly over to where I stood, receiving the guests of Valhalla in my vice-Honkian capacity, and wondered where the best hotel was.

He had mild, grayish eyes, and a voice between a tenor and a barytone—a tenor

profundo or barytone *crescendo*, you might call it.

"What line of business, please?" I asked politely.

"Common tourist," he said without asperity.

"Try the Palazzo," I recommended. "Two dollars a day and up. American or European, according to taste. Two blocks up street. Next!"

He murmured thanks and sauntered in that direction, or maybe he didn't murmur thanks, I don't remember.

I mentioned him to Honk later.

"Looks like either a ranchero, a caballero, or a hobo, I can't say which," I said. "Or he may be a duke, traveling in *apropos*, or whatever you call it." Honk was inattentive.

"That was as complete a burn-out as I ever saw," he said, referring to the late short-circuit. "Why, man, she crossed her current through six separate layers of insulation, reversed the incongruity, and evolved a"—if he didn't say that, he said something that sounded like it, anyway.

I happened to be passing the Palazzo in a day or two, and stopped in to beat the slot machine out of a cigar. The clerk was a crony of mine.

"Seen the poker player, yet?" he asked.

"No," I said. "Who 'tis?"

"William W. Goode," he made reply. "Tall, smooth-faced gent, with a sad look and a black hat. Rooms here, and eats when he's hungry. He's a card expert. Last evening he trimmed our dear beloved boss of this hotel, here, of a thousand iron men in a friendly sitting at a dollar limit in Room 88. He's going to board it out."

I was charmed and diverted.

"Where'd they get their permit?" I inquired. "We don't aim to make no sportsman's paradise out of Valhalla that I've heard tell of. This is Spotless Town, according to the blue-prints."

He winked adroitly.

"I know," he said. "I'm aware of the fact that your long, hungry friend Simpson, who has been czaring around here ever since the P. and P. promulgated the place, has got a bug of that sort, but,— Pshaw! We've got a city here now, a municipality. Didn't we

adopt a charter by popular vote two weeks ago? Didn't we elect a mayor and three franchise dispensers? We did.

"We're forging to the front. All we need now is a little public spirit, civic pride, and a café or two, and we have arrived. And our friend Goode is going to fix it so he can open up a café, next door here to the Palazzo. Wake up, Dreamy, and get in the procesh!"

Now, neither Honk nor I are identified with the dry movement personally. We only expected to start Valhalla off on the right foot. There be weak mortals who can't resist temptation like he and I can. What we had in the private stores of the medicine-house was nobody's business.

"You take it from me, son," I said. "I'm grand vizier to the Calif Haroun Al Raschid, heap biggity muck-a-de-muck. There won't be no boozorium in Valhalla soon. Not any. And I've got a mental panorama of this card-artist star boarder of yours going over the divide in a shower of sparks as soon as Hancock Simpson hears of his delinquencies. Why don't you get a decent cigar-lighter around this dump?"

Well, what do you think? Bill Goode came down to the medicine-house that evening and interviewed us, the calif and me, his aide-de-camp. Bad Bill's breath savored of the red, red beverage, and his eye watered, but he was firm of step and garrulous.

"Simpson, of the P. and P. outfit?" he inquired. "I've heard of you, some. You think you're it around here, don't you? Some says you'll 'do, and some says maybe. My name's Goode. I'm a hateful and poisonous proposition. I come



"THEY COME ON ME SUDDEN, AND THEY'RE ALWAYS FATAL TO SOMEBODY."

from the salty and brackish waters of Tough River, and I come clean. At times I am mean in my conduct and dangerous to be safe," he went on to explain.

"Sorry to meet you," said Honk. "When do you expect your spell to be at its worst?" That seemed to irritate our guest somewhat, and in his moment of anger he produced from either side, where they had been concealed beneath his coat, a large blue-barreled revolver—two, I counted 'em, two—which he handled familiarly, one in either hand.

"I'm losing control of myself now," he said. "They come on me sudden, and they're always fatal to somebody." I believed him unreservedly. Honk seemed unconvinced.

"Yes," our visitor bellowed. "I went out of my way to hunt you fellows up and settle this matter. I hear you in-

tend to run me out of this town. I hear you don't like my style of beauty." (Curses.) "I hear I'm not nice enough to play in your yard." (More curses.) "I—I—"

"Shut up!" said Honk. "You'll wake up our pet parrot there in his cage—he's a light sleeper. Horace, this man," he continued, addressing me—"this man is bad. He admits it. He has come down here to pick a fuss out of us, Horace."

I nodded. It so appeared to me.

"We will feed him to the tiger," Honk resumed. "He must be sacrificed. It will do him good, besides benefiting him."

He allowed his gaze to wander past the armed man, as if fixed on some approaching object. Try this, some time; it works.

"Steady, steady, Hector," he said. "Nip him, boy, *now!*"



I SURPRISED HONK IN THE ACT OF DEVOURING A COLD POTATO.

The bad man from Borneo couldn't resist the temptation to turn his head, by which lapse from vigilance we got him. When his guns were captured, and our bloodthirsty visitant somewhat messed over, Honk lectured him, gave him an hour in which to leave Valhalla forever, led him to the door, and kicked him ruthlessly from the platform, all spraddled out.

"So much for the hateful and poisonous proposition," he remarked, as we returned to our cozy chairs. "Many are called but few are chosen. Such is life in the Far West. As I was saying, the absence of red rays in these vapor lamps is a peculiarity which will render them impracticable for illuminating purposes in the ordinary sense. But! My idea would be—" etc.

I went to bed leaving him still talking, or talking still, whichever you prefer, and filing a saw. We did not notice Bad Bill around for two days. Two days, four hours, and thirty-nine minutes, to be exact.

Promptly at that minute he reappeared with a team, wagon, and two camp-followers, all loaded down with guns, pistols, knives, cartridge-belts, and the other impedimenta of brigandage. They drove straight to the Plaza, in the center of Valhalla, unhitched and picketed out their plugs in the park, threw up a fortified camp, and took possession of the city in the name of Riot and Disorder. Wouldn't that blow off your hat?

They awed us on the first jump; I'll have to admit that. You take three irresponsible drunken ruffians, clothed in smoke and profanity, and let them march up and down the streets of a peaceful community, shooting out window-panes and otherwise roistering and intimidating indiscriminately in all directions, and the timid quake in their puttees.

It even wears on us more intrepid souls; the noise of their shooting got in my ears so that I secreted myself un-

der my bunk in the medicine-house and walked up the opening with canned goods.

What Honk did I couldn't say. I'm not his grand vizier all the time. I have my half-holidays. It was said that Bad Bill and his wayward crew swore to kill, maim, and lacerate Honk and me at sight, and that they craved the sight of us—begged and pleaded for that boon, in fact.

All day the fusillade continued, except at intervals when the besiegers were re-loading themselves and their guns; all day business was at a standstill in Valhalla, and the three drank deeply from their stock of refreshments in the wagon, strewed bottles in all directions, and took pot-shots at everything in sight.

It was a reign of terror; Valhalla was in a state of beleaguerment. They came down during the afternoon, and shot out most of the medicine-house windows. I remained under my bunk, and held no conversation with them whatsoever. I knew that if I got started I'd go too far—several miles at least.

Somewhere along about nine-thirty in the evening I heard a stealthy step outside. A key was inserted in the lock guardedly, and Honk entered. I knew him by his sniff.

I emerged from my sanctuary somewhat crumpled, and surprised him in the act of devouring a cold potato. He had come home to eat.

"How you startled me!" he said. "Where'd you come from? I feared the worst had happened to you. Well," briskly, "what's the news from the front? I've just this minute returned from a junket south of town. The alfalfa-fields look fine."

"The news," I said, "is not reassuring. Valhalla is in the hands of the Goths. Rome is burning, and the tom-tom sounds in the market-place," I reported.

"Now that I have arrived on the scene," he mused, "we must devise ways and means to stop the conflagration. I feel better since that sandwich. First, the proposition is this: We have before us a problem. A foreign and deleterious element has appeared in our midst. Our body politic is attacked by a malignant, cancerous, parasitic growth—a fungus has sprung up.

"All problems have a solution, all diseases a cure, all poisons an antidote, according to exact science."

"Hip, hip!" I cheered in a whisper. "What's the answer?"

"I've been cogitating," he continued. "Don't hurry me. All day, while I lay—I mean, while you lay—secreted from the eyes of men, and the vandals ripped and tore through the streets of this, our fair city, I sat and busied my wonderful brain with thinkings.

"Now, since I've partly dined, I don't mind confiding that this Bad Bill Goode person and his confrères in hoodlumism are my meat. Science wins over savagery. It has been so all down through—"

"Bang! Bang!" went something, coming down the street.

"Finish your diatribe later," I said. "Me for the weeds!"

I hurried out, leaped, and lit running. Later I discovered Honk beside me. It didn't seem to exert him much to keep up with my short stride. He talked as we marathoned.

"As I was saying," he resumed, "science has disclosed the curative and rejuvenating properties in a ray of light. Certain diseases disappear like they were shot out of a gun upon the application of the violet ray. Tottering invalids are made whole, sores healed, devils exorcised.

"All right, I call the bet and raise you a few chips. If a violet ray cures a sick man, there must be something to sicken a well man. It's the law of opposites.

"Every condition has its alternative, every argument two sides. Very plausible reasoning.

"If a violet ray fixes 'em up, what tears 'em down? What are the primary colors in a prism? Don't interrupt!" I slowed down, puffing, but was too winded to answer.

"Violet, indigo, red—etc." He fell over an obstacle in the darkness. I waited. "Curses on the guy that left that water cut-off sticking up!" he commented. "Indigo and orange rays, Horace, will do the business. How do I know? Never mind. Shoot 'em at a living organism, and what happens?"

"His blood clogs in the capillaries, his nerves curl up and sting him, his heart fails, his lungs refuse to perform

their vital work of purification, and the little microbes that lurk in every nook and corner of his system, waiting for just such a moment, swarm out and go for him.

"There you are. His harvest days are over, for a spell."

"Well, then," I said, "you never had a more glorious opportunity to inoculate a bunch of marauders than now presents. What are you running away for?"

"Running away!" he snorted. "Huh! You've got a gyroscope in your occiput. We're not running away—we're *on* our way; to the power-house, Horace. You seemed in a hurry; that's all the difference I can see."

We were, in fact, headed in that direction, although I hadn't noticed it particularly. A couple of blocks farther brought us there, and Honk proceeded to put his theories into practise.

Butch Poteet was chief cook and officiator at the power-house at night. We enlisted his services.

There was a thousand-candle search-light over in the corner. Honk built it one day while killing time. It had never been used, but was warranted to stab a hole in the dark for I forget how many miles.

We put that search-light in shape pretty shortly. Connected up a coil of wire to it, trimmed her with new carbons, greased, primed, and hoisted her up the ladder on the two-hundred foot stack above the boiler-room, where we had a sweep at every crook and turn of Valhalla.

"They can't get away," chuckled Honk. "This stunt is too simple for grown men to engage in, but it's inexpensive, and will do the work. We could go down and clean 'em out at their own kind of game, but that is so littery. This is better."

"It is," I agreed—"much better. On with the dance!"

I took an enthusiastic interest in the setting of the stage for action. I like long-range fighting.

"How do you color your lights?" I queried. "Have you got any blue glass to squirt it through?"

"My boy," Honk spoke sympathetically, "save your brain force for the abstruse problems of eating and waddling

around. Science is taboo for you. Don't you know that light shining through a blue glass is not a blue ray? Of course, you don't.

"Butch, watch him to see that he don't fall in the fire while I'm up aloft. And, Butch, bring me that boxful of bottles off the shelf—the one I warned you about. I'll show you some sure-enough blue rays."

"Just the same—" I started to get back, but he was gone. He scuttled up the ladder, and fastened himself somehow, with the search-light swinging in front of him, just below the hood of the stack. I climbed up about half-way to see the show and to yelp the word down to Butch when to turn on the juice.

It was a good half-mile to the Plaza, where the center of trouble was. We could hear faint hallos and the occasional crack of guns, and see little spurts of fire. Honk passed the official call for current, I handed it on down, and Butch flipped over his cut-in switch.

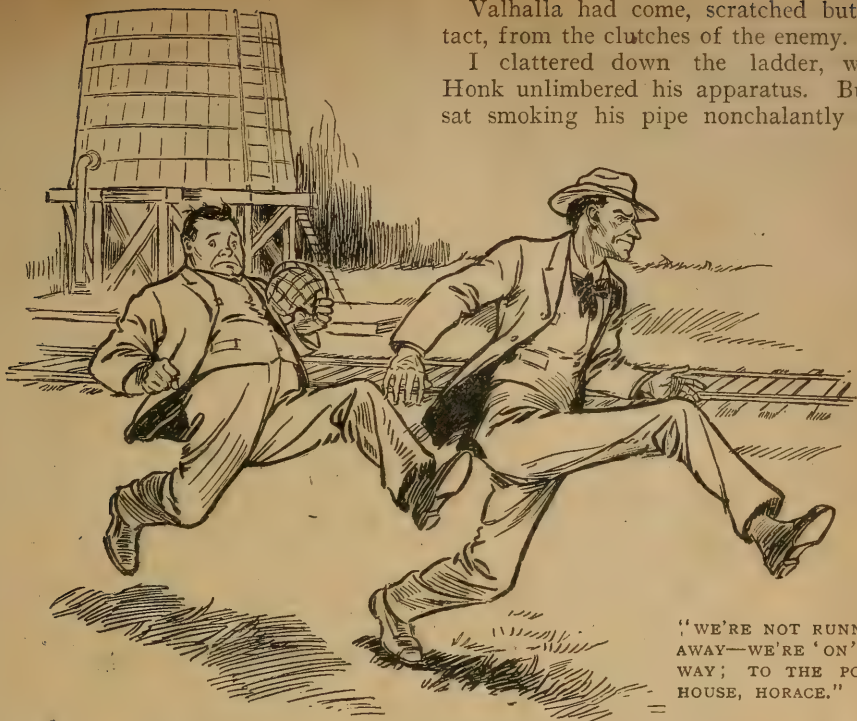
First came shooting the dazzling gleam of white light that slipped through the darkness like a sword-blade, and waved along the streets, breaking and spraying at the end into a cascade of light that showed up the pores in the bricks. A mouse couldn't have hidden himself where that ray struck.

Honk located the despoilers in about ten seconds. There they were, three maudlin puppets, waving their puny arms and shaking their little fists in defiance.

Bang! Bang! Bangity! went their pistols. It sounded like the popping of popcorn at that distance, and the bullets fell considerably short—not any too short to suit me, though.

It looked like a moving picture with the "*gr-r-r*" of Honk's machine up above. Goode and his partners stood about half-way between the big fountain in the Plaza and the corner where the two stone lions are, and they kept on waving their flippers and wasting ammunition. That was the way the scene looked when Honk turned on his medicine.

I don't pretend to say how he did it. He clinkered and squittered a minute, with his bottles and his light, humming a tune to himself. The bright white beam of light up above me suddenly turned a ghastly gray, then purple, cobalt, black



"WE'RE NOT RUNNING AWAY—WE'RE 'ON' OUR WAY; TO THE POWER HOUSE, HORACE."

almost, gruesome, horrible-looking. I looked once, and shut my eyes. It gave me a chill.

When I looked again, he was shooting a thick, gummy, yellow streak of light into them that made me still sicker to look at. I could guess what it was doing to those guys at the end of the ray.

Then he changed back to the blue again, and I saw one of the victims start to run. He made a jump, then crumpled up, and fell on all fours like a dog. I imagined I could hear him "*ki-yi*."

'Twas very interesting and instructive to see Bad Bill try to fight that indigo dope that was turning his microbes loose to undo him, and to see it finally wilt him. The other two were down and rooting in the grass of the park before we fetched Bad Bill, but he got his a plenty, after so long a time.

He ran fifty yards for a tree, but couldn't make it. Honk just actually swamped him with poisonous rays before he got there. He threw up his fins and fell like a corn-stalk before Kabibonokka, the north wind, and freedom rose up out of the shrubbery whither she had fled, and reconnoitered.

poring over the *Evening Clarion*. Nothing excited Butch except a dime novel.

"I guess I didn't put 'em down on their crawlers, eh?" said Honk, lugging in his paraphernalia. "Gimme a chew, somebody. Don't all speak at once. Say, that stuff's hard on the nerves! Look how my hands are swelled up where it hit 'em. Come along, Horace; if you can control your cowardly legs, we'll go up and clear off the mess on the lawn."

Well, there wasn't any bad men whooping around the Plaza any more. Bad Bill Goode and his huskies had reformed. There they sat on the grass, all hunkerèd up, sicker than hounds with cholera infantum, looking around like their last friend had made good his escape.

"Come, come," said Honk, lifting Bill Goode by the ear, "this'll never do. The big show's over. The little boys must skiddoo for home, before the booger man gets 'em. This park is supposed to close at nine o'clock, and here it is ten-thirty. You fellows are due for a rough-housing right now."

"No, sir; yes, sir," the wild and woolly ones squeaked in chorus. "Don't hurt us; we're sick. We're all shot to pieces."

They looked it. Chills, fever, typhoid, pneumonia, rheumatism, pip, roup, and boll-weevil. They had 'em all. Not a whoop or glare was left.

Tottering, limping, and bent with misery, they caught up their plugs at Honk's

"Ta-ta, good-by, and farewell!" said Honk. "Whip up, now, and don't bother to come back. Your work is finished here. If either one of you fellows ever does come back as long as I'm hanging out in this neighborhood, please feel sor-



"THIS PARK IS SUPPOSED TO CLOSE AT NINE O'CLOCK."

direction, hooked them to the schooner, and hoisted themselves on board, with many creaks and complaints.

Bad Bill had a terrific chill before he got both feet in, which was followed by faintness, nausea, headache, and flatulency. The other two were having dizziness and hot flushes alternated by torpid liver and that all-gone feeling, when Honk headed the team into the street.

The helm was hard apart, and their course was laid for the open sea.

ry for yourselves. You've had your last sample. Next time you'll get the real article. Now, hike!"

Bad Bill Goode propped himself up with a shaking arm, and looked at us with an air of apathy. Then a last flicker of his outlaw's spirit stirred him, and he shook a trembling forefinger at Honk.

"Eh-eh-poooh poooh for you!" he squeaked as they drove away into the night. "We ain't afraid of you, dad-bust you! Whip up, boys, an' let's go!"

BRONZE INSTEAD OF BRASS.

AN order recently issued by the Atchison, Topeka and Santa Fe will result in every car and coach on the system being sent to the shops and the brass trimmings will give way to those of a statuary bronze. The hat-racks, side-rods, light-fixtures, and every piece of brass will be taken out or covered with a coat of bronze.

This will do away with the constant expense of polishing and keeping it in shape. Bronze will hold its color unaffected by the elements, and will never grow dull and distasteful to the eye. A little cleaning now and then for sanitary purposes is all that is necessary.—*Railway and Engineering Review.*

The Science of Rate-Making.

BY THADDEUS STEVENS.

THE whole range of commercial statistics knows of no more complicated, delicate, and far-reaching process than the making of freight rates on American railroads. The vast territories covered, the different requirements of those territories, and the widely varied products which the enormous area yields, combine to make a problem that only the best-balanced and most orderly minds can cope with. In addition to this, all these conditions are constantly changing; and when it is considered that the rate-makers must work within the lines defined by forty-six different State governments, as well as the Federal government, the size of the task can be imagined.

Rate-making is a science in process of evolution—a science whose fundamental premises are being constantly changed, and the professors of which need to be more up to date than those of any other science, because they are a direct economic force in the community.

The Systematic Manner by Which the Present Elaborate but Excellent Schedule Is Built Up from the Invention of an Ordinary Freight Clerk.



HE making of a freight-rate between two points on different lines of railway is not the work of one man; it is the joint product of a hundred brains. If the article covered is a new and hitherto unclassified one, perhaps a thousand people will each have contributed their quota of information or advice before the price of its transportation is agreed upon.

When one of the historic first railways in America was built, out of Camden, South Carolina, the wagon freighters charged twenty cents per cubic foot for light weight, and a dollar a hundred pounds for heavy articles. This was for twenty miles or less, because that distance was a day's work. The Camden Railroad's charter decreed that its charges should not exceed ten and fifty cents—half what the wagon freighters were charging. So the officials of

the infant railroad divided its territory into ten-mile districts, and adjusted its rates at a hundred pounds per ten miles.

They soon awoke, however, to the fact that the value of the goods hauled was an important element in their cost of transportation. Therefore, the Camden and the other little lines then in existence evolved classifications of merchandise, fixing rates according to class instead of commodity.

Birth of Classification.

Thus was born the basing of rates on the class of goods, a system which with certain exceptions prevails on all the American railroads to-day. These exceptions are the special commodity rates, which are far in the minority.

Every article of merchandise that a railroad handles is supposed to be listed in the official classification-book which governs in the region where its trains

run. In this book is listed alphabetically between eight and ten thousand articles.

In the column opposite each is a figure or a letter of the alphabet showing the class to which it belongs. Now, this classification is of no value by itself, any more than the thumb would be without the fingers.

The freight tariff is its necessary complement. Taking the two together, the rate is arrived at.

If you ask a clerk in a freight-office for a rate on "blood, dried, in packages," Chicago to New York, for instance, he will not start back in horror, and reach for his steel eraser as a weapon of defense. He will reach for his classification-book, casually remark that it is third class in less than car-loads and sixth class in car-loads.

Chaos of Standards.

Then he will look in his tariff-book, and say that the rate on the former is forty-two cents—or whatever it is—and the rate on the latter twenty-one cents. If he had not had both the classification and the tariff before him, he could not have told you the rate.

The basis, then, of the freight-rate is the classification. Years ago, each railroad had its own classification, and the man who wanted to ship a case of shoes from Boston to Baltimore could get only the haziest of ideas as to what the through rate would be—he knew even less what his competitor was likely to pay.

Before the adoption of the present system—there are but three sets of classifications now—there were 138 distinct classifications in the Eastern trunk line territory alone. History is silent as to how many there were in the Middle States and the West, but there must have been an appalling number.

The reduction in the number of classifications to three was brought about by the growth of through traffic, and of friendly relations between the warring railway officials. These three classifications—born, as one writer puts it, of "deliberation, discussion, and strife"—are as follows.

The Official Classification is supreme

in the territory east of the Mississippi and north of the Ohio Rivers, and contains six classes. The Southern Classification, with fourteen different classes, in the territory east of the Mississippi and south of the Ohio Rivers. The Western Classification, with ten classes, in the territory west of the Mississippi.

There is also a Transcontinental Classification, which applies on some classes of through freight from and to the Pacific Coast. A few of the State Railroad Commissions have also muddled things by establishing local classifications within their boundaries, but these are not of much importance.

Even now, after seventy-five years of study, the classification arrangement is not perfect. Each of the three big classifications differs materially from the other.

A universal uniform system will probably come some day. It almost came in 1890, when a uniform freight classification, prepared with much travail and friction, was approved by all the railroads in the country but one—an Eastern trunk line—which defeated the movement.

But changing the existing order of things is considered by most traffic men to involve pretty serious risks. They say that a uniform classification could be adopted only through interminable fights and compromises, that it would mean the changing of rates all over the country, and would upset business conditions mightily.

Methods of Agreement.

The classifications are made up and guarded by the classification committees appointed by the various railroads operating in the territories concerned. These classification committees are in session every working day from nine in the morning until five in the afternoon.

One part of their work is issuing rulings on the class certain commodities shall take. Local agents, bill clerks—even general freight-agents and traffic managers themselves—are continually being "stumped" on how to classify certain articles which do not appear to be listed specifically or to be covered by the frequent initials "N. O. S." (not

otherwise specified) placed after the designation.

When the highest freight official in the general office cannot tell what the classification should be, he refers it to the committee, and they give their decision.

Each classification, as has been said, contains between eight and ten thousand items. These are grouped under from six to fourteen classes. Generally speaking, whether an article in the classification takes the first—or highest—class, or the tenth, or fourteenth, is determined by its bulk, weight, and value.

But there are a lot of other things which the classification committees have to take into account. They have to consider whether the goods are crude, rough or finished; liquid or dry; knocked down or set up; loose or in bulk; nested or in boxes, or otherwise packed; if vegetables, whether green or dry, desiccated or evaporated; the market value, and the shipper's representations as to their character.

Variety of Rates.

Also, they have to consider the probable cost of the service, length, and duration of the haul; the season and manner of shipment; the space occupied and the weight; whether in car-load or less than car-load lots; the volume of annual shipments to be calculated on; the sort of car required, whether flat, gondola, box, tank, or special; whether ice or heat must be furnished; the speed of trains necessary for perishable or otherwise rush goods; the risk of handling, either to the goods themselves or to other property; the weights, actual and estimated; the carrier's risk or owner's release from damage or loss.

For instance, agricultural implements set up—ready for use—take double first-class rate; lounges of bamboo or rattan take three times the first-class rate; ashes, brick, salt, sand, sawdust, etc., take the lowest or sixth class. All these are from the "Official" or Eastern Classification.

Cost largely governs the classification. The rate on silk is high, because it is valuable and takes but little space. Feather beds are not worth much, but

they take up a lot of room; therefore, they pay double first class rates.

Value puts books, blankets, sixty-cent watches, etc., in the first class along with wash-boilers not nested. Nested wash-boilers take second class because they occupy less room. The reason why sand and sawdust and other bulky articles take the lowest class and rate is because they are cheap, and the lowest rate is "all the traffic will bear."

Another delicate point for the classification experts to decide upon is, for instance, if they conclude to charge crackers, in baskets, at the first-class rate in less than car-loads, what the same shall pay in full car-load lots. They take the fourth-class rate in such quantities, by the way.

Now, a car-load lot does not mean how much can be crowded into a particular car; it means, for one thing, how little the minimum car-load. In the East the minimum is 30,000 pounds, except in certain classes of goods, like church furniture, settees, and tables where the minimum is 10,000 pounds.

Why exceedingly nice judgment is required in fixing the classes on car-loads and less may be better understood when it is considered that the railroad must continually foster its business; that by means of shipping in car-loads, a big dealer can get his goods cheaper and undersell his small competitor. A wide difference between the two rates would hurt the New York jobber, for instance, who wished to reach directly the retail trade of the West, and it would favor the jobber in the West or South who required a low rate for his wholesale shipments.

Territorial Conditions.

One eminent expert—Judge Noyes, of Connecticut—is the authority for the statement that the "tendency of the 'Official' classification is to protect the Eastern manufacturer by reducing the difference between rates for retail and wholesale shipments; while the inclination of the 'Western' and 'Southern' classifications is to promote the interests of the wholesale dealers within their territory.

The fixing up and keeping in order of

the official classifications of goods is complex enough; but the making of the freight tariffs which apply to them is a task so enormous on each line, and the result—that is, the relation between the cost of the service and the price charged for it—is so wavering and inexact, that rate-making is still one of the greatest problems of railroading. Enough has been written and printed about it to fill a good many book-shelves, and there is as much diversity of opinion as to the proper method of arriving at the cost of hauling goods, and how much to charge the customer for it—the freight-rate—as there is about the right road to heaven.

Years ago, before the birth of the Interstate Commerce Commission, this business was handled by railroad associations which were known by the shorter and more expressive word “pools.” Each of these was presided over by a high-browed expert who actually knew more about the science of rate-making than any of the railroad officials had had time to learn, and, therefore, received an enormous salary.

These associations were made up of the competing lines in each territory, and it was their aim to agree upon uniform rates between various points. Further, if one line should get more than its proportion of earnings, it should pay over the excess to the other lines.

End of Railroad Pools.

Rate-cutting was a frequent feature, notwithstanding all these precautions. Legislation finally abolished all railroad pools, and now the task of deciding on joint rates is part of the day's work of the railroad traffic department.

The rate department on each large road employs continuously from twenty to forty skilled men whose sole business it is to try to arrive at the probable cost of hauling certain merchandise. Their conclusions furnish a basis for the future arguments between the different railroads concerned as to what rate to put into the tariff, and what share of a through rate each road shall receive for its haul.

There are two classes of tariffs: those based on the classification, which tell how many cents per hundred pounds to

charge for each class of freight between two points, and those which are arbitrary rates independent of the classification. These latter are called commodity rates.

Factors in Rate-Making.

In the making of a freight-rate, entirely different elements get into the center of the stage from those concerned with the building up of the classifications. As one writer puts it: “The classifications determine the relation of charges; the tariff, the specific charge. Different roads with the same classification must make very different rates for similar services.”

Here are a few things which traffic people have to keep in mind in arriving at a rate basis.

Are there heavy grades on the line, or even a mountain range to cross, while the competing line runs through comparatively level country? The density of the traffic also has a good deal to do with determining the rate.

The road that runs through deserts or a country that is sparsely settled must charge a high rate—comparatively—or else the receivers will get it. So much of the railroad's expenses go on whether it does business or not that when it comes to figuring the cost of hauling the various classes of freight, the usual custom is to regard this total expenditure as a whole as a basis to figure from.

But, great as the science of statistics applied to railroading has become, it is still impossible to determine exactly what it costs to haul any particular commodity any particular distance.

There are a few basic principles in rate-making that form the solid ground from which the experts work. One of these is that commodities that move in solid train-loads over long distances can be carried at a less cost per ton per mile than those that are hauled in separate car-loads on trains that carry different kinds of freight, or freight that moves in less than car-load lots.

Therefore, the lowest rates are always between the great consuming and distributing centers, like Chicago and New York. The rates between these two great cities have been arrived at after years of fighting and compromise between the

mighty warriors in the field of transportation and between the communities affected as well. They are called "one hundred per cent rates."

In the same way the rates between intermediate cities and territories have been established as percentages of the one hundred per cent rate. New York to Pittsburgh is sixty per cent of the Chicago rate, for instance. Cleveland is seventy-one per cent, Detroit seventy-eight per cent, Indianapolis ninety-three per cent; Peoria, beyond Chicago, one hundred and ten per cent, and St. Louis one hundred and sixteen per cent of the New York to Chicago rate.

The Hundred Per Cent Rate.

Rates from Boston and interior New England points, rates from the territory surrounding Buffalo and Pittsburgh, and from other interior points are also established in relation to the New York-Chicago rate, as well as rates to and from Norfolk and other points in Virginia. Rates in the opposite direction—from Chicago to New York—are also on the same one hundred per cent basis, upon which are likewise made practically all the West to East rates from points on the Mississippi and Ohio Rivers and the territory to the north and east of them.

It is interesting, just here, to tell what happens when a railroad rate on an article of general production and consumption is reduced or increased between an Eastern and a Western point in the territory specified. All railroad rates are reduced between all Eastern and all Western points; rates for combined lake and rail transportation are cut; rates via the Erie Canal and the Great Lakes are lowered to maintain the proper difference between them and the all-rail rates and the rail-and-lake rates; rates on through traffic from and to points west of the Mississippi River and from and to points south of the Ohio River come down; rates may also be decreased to and from points in Canada. Experts say that the change in but a single one of the rate bases mentioned has forced the changing of not less than eight thousand rates.

This shows what a delicately balanced house of cards is the rate system that

various railroads have so painfully and laboriously built up between themselves, and how easily disturbed. Touch the rate on iron products out of Chicago, and Joliet furnaces and Pittsburgh rail-ways will be thrown out of gear.

As a consequence of a recent change in rates from Baltimore to Atlanta, and Louisville to Atlanta, three-fourths of the railroad rates in the United States were affected, and the total changes in rates necessitated by this initial change were not less than one hundred thousand.

The rates on the Pacific Coast are beset by the same complications as those east of the Rockies, and must be kept in adjustment with the ocean rates as well. The merchants in the vast territory west of the Mississippi River, in brief, are all competing for trade in that vast territory.

The rate adjustment now existing there is the result of all this competition between themselves and among the railroads. Yet, changes have to be made continually to meet the fluctuating conditions of industry and commerce, and such changes are the things that call for the exercise of the utmost diplomacy and experience of the traffic on the great lines interested.

Even the commodities themselves compete in rate-making. It is a general principle that crude or raw materials should, other things being equal, pay lower railroad rates than what is manufactured from them. For instance, the rates on pig iron are lower than on steel blooms and ingots, though the only difference between them is that the latter are worth a trifle more. A change in the rate of any raw material, therefore, affects every article manufactured from it.

Invention of a Freight Clerk.

The system of "one hundred per cent rates" explained above was devised by James McGraham, a clerk in the freight department of the Pennsylvania Railroad. It simplified enormously the making of tariffs, and also removed the complications surrounding the fixing of rates from points common to two or more routes, via either of those routes to another common point.

A city like Chicago or New York is called a "basing point." That is, the

rate to such a point is one dollar, for instance. To points beyond that, within certain territory, it is such and such a percentage in addition.

Large cities are not necessarily basing points, however; but geographical centers of vast freight movements are also taken. Some of these are Peoria, Davenport, Dubuque, Sioux City, St. Joseph, and Leavenworth.

The result of all this complicated system of rate building that has been briefly outlined is that every freight official, big and little, and even the traveling representatives of the freight department and the station-agents of the big modern railroad, are continually collecting information leading to readjustment after readjustment of freight-rates.

When it is finally decided by one that a rate should be changed, the matter is carefully calculated statistically in the rate department. The result is submitted to the head of the traffic department, and he discusses it pro and con from every point of view with those who have expert knowledge bearing on the matter.

After it has been thoroughly gone over and the arguments tested, link by link, why it should be changed, the traffic manager, like the ambassador and diplomat of one great nation treating with another, takes it up with the road or roads interested, cautiously or vigorously as the case may warrant. Then comes the test of the relative abilities of the various traffic managers.

The same difficulties of adjustment apply to the commodity-rates as to those governed by the tariff and classification—in fact more, because each relates to a specific article of merchandise. The much greater part in bulk of the freight transported in the United States moves at commodity-rates, although the greater gross revenue is from the goods carried at class rates.

These commodity-rates apply generally on heavy or bulky merchandise or material like grain, lumber, coal and iron.

Commodity-rates are lower than class-rates for a variety of reasons, one of the

principal of which is competition with the water routes of transportation. Most of the heavy transcontinental traffic moves under commodity-rates.

These rates also are especially favored by railroads wishing to foster new industries along their lines or to enable manufacturers to reach out into new markets. Not infrequently a railroad will make a low commodity-rate between two given points only, and leave otherwise undisturbed the class-rates in the same territory. That is because they deem some individual industry or group of industries will be fostered thereby.

The railroads in this matter of rate-making really play the part of paternalistic protective governments who desire to foster growing enterprises within their territories, and do so by raising or lowering the customs tariffs.

Of course, commodity-rates are frequently withdrawn after their object has been accomplished. It is easier to do this than it is to change the tariffs based on the class-rates which may affect a less restricted region.

A railroad, however, as might be gathered from the above, is far from a philanthropic enterprise in the fostering of weakling industries. It is a public enterprise for private gain, and one of the principal bases for the fixing of a rate is designated by that widely abused and greatly misunderstood term, "what the traffic will bear."

A freight charge has to be, in the long run, no greater than the difference between the cost of production at the place of origin plus the merchants' profits and the price which can be obtained for the commodity at the place of destination.

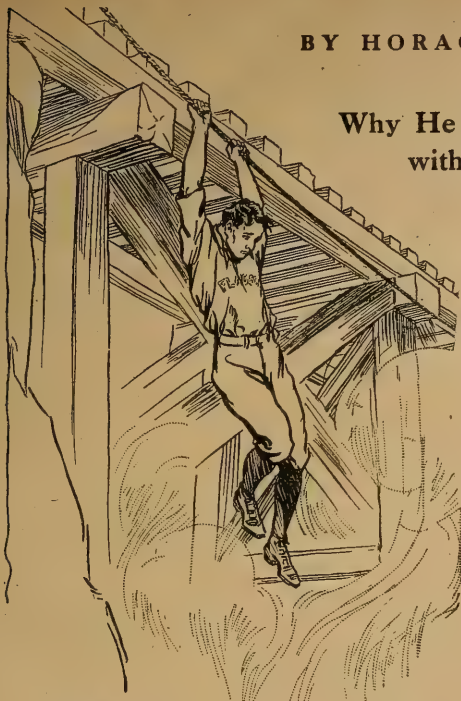
The railroad has to make its rates so that it may earn a fair average profit, and yet so that the greatest volume of goods may find a market over its lines. If the rates on dry-goods and on coal were the same, the road's total revenue would not pay its expenses; if it attempted to charge as much for hauling coal as for dry-goods, the coal-cars would not be in use at all.



SMOKE'S LOST INDEPENDENCE.

BY HORACE H. HERR.

Why He Signed Up the Matrimonial 31 Order
with Molly Stevens, After a Fourth-
of-July Baseball Game.



SWUNG BACK AND FORTH FOR A MOMENT.

SEEING as how Flagstaff, Arizona, is several train lengths removed from Bunker Hill and the rest of them famous Revolution stations, one don't expect it to celebrate the Fourth of July accordin' to the standard book of rules. But I sure remember two celebrations down there that were full tonnage when it come to the genuine fireworks.

The first one was the time old Lon Kingsley, from Shevelon Creek, brought that yaller hoss of his'n over to race a flea-bit gray owned by an Indian trader at Keam's Cañon; and the other was when Smoke lost his independence and several large chunks of his epidermis.

After that hoss-race the town turned out and give the stake-holder a decent funeral, and the company doctor was pickin' bullets out of four other fellows for a week.

Seein' as how the doctor didn't know much about the workin' parts of a cow-puncher, havin' been workin' on railroad

men all his life, it hain't no wonder that two of the fellows didn't take kindly to his back shop and passed in their checks.

I was right alongside of Lon Kingsley when the celebration started, and after I see him draw one of them smoke-poles with a muzzle on it as big as a diamond stack, I happened to remember that I'd forgot something over to the roundhouse, and as I went right over there by the shortest route, to see what it was, I wasn't present at the concludin' performance.

Every one who stayed said that it was worth the money, but when the prosecutin' attorney was huntin' for witnesses he couldn't find enough to convict anybody, and the town council decided that, for the public safety, they would have to lock the switch on hoss-racin' in the future.

Of course, the Fourth of July has got to be celebrated some way or another, and with hoss-racin' off the time-card the town voted for baseball. The first year a nine from the roundhouse took all the steam out of the brakemen's nine; and the next year the soldier boys from Fort Apache came over and coupled onto a double-header victory by beatin' the roundhouse in the morning and the brakemen in the afternoon.

But the next year we had Smoke Dugan playin' with us, and we picked one good team from everything between the high switches. We invited the uniformed boys back, believin' that we would be able to tie a large piece of hardware onto them. They come over, and brought a band with them, and there was a special from Ash Fork and another one from Winslow, and I'll bet my meal-ticket against a blind gasket that Bunker Hill or Philadelphia couldn't done the job of celebratin' any better.

Smoke was the whole works that day—engine, cars, and caboose. When it come to railroadin', I can't say that Smoke was very much. I think he must of got his early experience drivin' a mule-car, for when Sam Parks give him a job in the roundhouse he didn't know the difference between a steam-chest and a sand-dome.

Everybody looked on him as a harmless sort of cuss, good-natured, with a facial map about as handsome as a Colorado potato.

For a few days the gang let him make mileage running after left-handed monkey-wrenches, screw oil, and keys for the steam gage, until the day Shorty Studer sent him out to polish the whistle on 660, so that the tone would be more shrill.

Smoke polished that whistle for two hours, and the hostler, being in on the deal, kept a little fire in the box, and enough steam on, so that Smoke could test the whistle semioccasionally. Of course, it was a little warm on top of that boiler, and the whistle was uncomfortably hot in spots; but Smoke was there when it come to sticking with the job, tooting that whistle every ten minutes, until it drew the attention of old man Parks himself, and he went down and put the boy next.

Shorty Studer had one real fight that I know of. It didn't go to a finish because the gang stopped it, but Smoke was going strong; and after that he had more real work to do, and less light mileage.

He hadn't been workin' more'n two weeks until he got out with the ball-tossers. From that day on he had right of track over everything in town. Sam Parks himself, beside being one of the best master mechanics on the pike, was some judge of ball playin', knowing some of them perfessional players back East by their first name.

The first time he saw Smoke Dugan passin' the pill over the pan, he turned to me and says:

"That fellow's a world-beater. He's got steam to burn."

Of course, I knew that the old man knew that steam won't burn, so I just smiled and let it go at that. Steam wasn't the only thing Smoke had. He could twist that ball around so it would do a reverse curb that made the Crookton loop look like a straight track.

He could send that ball up to the batter on a fifty per cent grade; he'd make it come straight half the route, then send it off on a side track; and the batter would break in two trying to hit something that wasn't there.

After we had seen him workin' for a month or so, we all had an idea what was goin' to happen to the soldiers on the Fourth.

But of course none of us fellows was figurin' that Stevens girl in the results of the game, seein' as how she wasn't one of the players, and only one of the enthusiastic fans; but I reckon that a man never makes a record run but what there's a woman mixed up in it some place—if it's no more than a woman telegrapher delivering him an order.

All of us fellows who hadn't signed up the matrimonial 31 orders were willing to divide our checks with Molly Stevens.

She was so good-lookin' that every fellow running out of Flagstaff was whistlin' to her every time he went by the house. But she kept us in the chain-gang for her favors, running us first in and first out, being plumb nice to all of us, and puttin' in her time keepin' house for her father, just as if that was to be her regular run for the rest of her days.

Of course, seein' as how Smoke Dugan was only a machinist helper, and so blamed homely, we all thought that as far as being called for a place in Molly's affections was concerned he was clear down at the end of the extra list.

I guess there was more than one fellow who felt his drivers slippin' when Smoke showed up for the big game, with "Flagstaff," in spankin' new silk letters across the front of his uniform, a loomin' up like an electric headlight on a dark night.

When I asked him where he filed his requisition for such supplies his face got as red as his uniform, and it was the same color as a danger-flag—and he managed to make me understand that Molly Stevens had put the letters there for good luck.

I took the slow sign right there—but then, that ain't got anything to do with the celebration.

I bought me a first-class ticket for the big game, and went inside the ropes. All the time the boys were breakin' in for the real run I kept thinkin' that it would of

been a blessing to have been born more of a ball-player and less of an engineer, and the big game finally started, and Molly Stevens hadn't showed up.

When that girl wasn't way ahead of her running-schedule for a ball-game, it was because the track was soft; and when the game started, and she hadn't registered in, I was plumb-sure there had been a wreck.

But Smoke was shootin' through the pellet just as if everything was all right, and it wasn't long before things got so interesting that I forgot everything but the game.

The baseball track, or switchin' yard, was right across from the depot. It was just a generous chunk of the flat, with a rope around it. Any one who stayed outside the rope was a piker; so everybody paid his two bits and came inside. I reckon no man ever got a bigger two bits' worth of baseball any other place in the world.

The soldier boys had imported a pitcher from Albuquerque, and he was plumb good. When he started to throw that ball he got in motion like a rotary snow-plow, and when that ball hit the catcher's glove it sounded like a Mexican switch-crew couplin' into a dog-house.

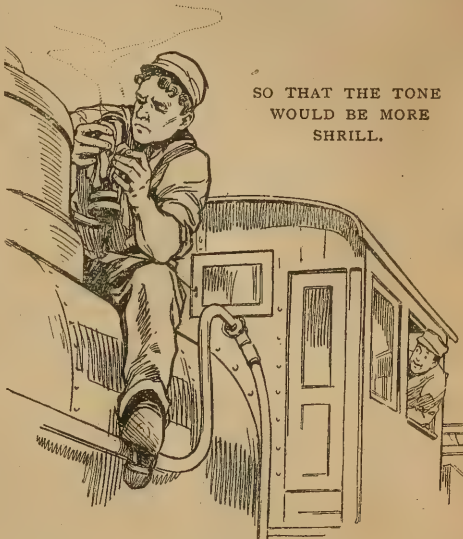
Why, our boys had about as much chance of hittin' that pill as a hand-car has of beatin' the limited on a level track, and at the end of the fourth trick our boys hadn't been outside the yard limits, 'ceptin' Reub Downs, who got so scared he jumped in front of the ball and got the right-of-track to the first sidin'; and even he killed so much time there that he got twelve hours late on his runnin' orders and lost his rights. There we was with the inside of a link to our credit, and the soldiers down on the board with one score.

Believe me, Smoke was using the short stroke, with sand on the rails, and beatin' her on the back all the way; and if it hadn't been that Chuck Burgette cornered an ant-hill when he was about to put the vent down on an easy pop-up, the soldiers would have been juggling ciphers too.

Then it come down to our take of the fifth trick, with Chuck Burgette first out, and Smoke marked up as the second section.

Chuck managed to get the ball just outside the main line between the second and third station and reached the first corner, and then— Well, among other things, old man Parks lost four dollars and ten cents.

He was standing up on the grandstand seat, with his hands in his pockets, when Smoke came up to bat. After the



human rotary had let go the ball, there was an awful crash; and just as soon as the old man realized that Smoke's bat and the ball had met head-on, and that the ball was a doin' its best to make its get-away to Utah, he jerked his hands from his pockets, grabbed his hat, and did several things unbecoming the most dignified master mechanic in a respected community. When he pulled his hands from his pockets he jerked all his money out too, and got so excited that he didn't know it.

I noticed that Smoke had asked some of the boys the time between each inning, and, just before he came up to bat, I looked at my watch and noted that it was just twenty minutes until No. 22, carrying all those Eastern tourists in the finest string of varnished wagons ever on a rail, would be pullin' down from Belle-mont.

I jes' says to myself, "Those Eastern sports will get a glimpse of a plumb good ball game." Then came that crash, and Chuck Burgette cut down the right-

of-way, giving each station the go-by as if he was the only train operatin' on that piece of track. When he crossed the plate with the first score, old man Parks and I was lookin' for Smoke. He had gone plumb crazy. Instead of follow-

About that time everybody saw the smoke less than a mile up the track, and knowing that the bridge wasn't nothin' but wood, most of the spectators started for it.

Parks led the bunch. I carried more tonnage than the old man, and I stopped long enough to look at my watch. It was three-twenty. No. 22 had been out of Bellemont just two minutes if she was on time, and with Stevens pullin' her, it was a good bet that she was right on the dot.

Stevens—that explained it. I knew right away why Smoke had been watching the time.

Mollie Stevens! Well, I decided of a sudden that I wanted to get to that bridge myself, and, after I got under way, I made pretty fair time, too.

The old man led me by fifty yards, and I led the crowd by a hundred, and I was the last to start. Guess there's nothin' to be ashamed of in that record.

That bridge *was* burning. The cañon there is a hundred feet deep and about sixty feet wide, and it's as straight up and down as the sides of a box car. The smoke and

flames made it impossible to walk across. The ties were burning; one rail had already begun to twist; and there was Smoke in his red uniform, the old man without his hat, and me minus everything I could discard, includin' most of my wind.

"It's almost time for 22," said Smoke; and while the old man quickly pulled his watch, I broke the silence tryin' to inhale a little air.

"In twelve minutes," gasped the old man. That's every word that was spoken.



"THE CAÑON BRIDGE IS ON FIRE!"

ing the rails to that first sack, he had jumped the rope, and was a good hundred yards up the railroad track, cap in hand. If he had been going any faster he wouldn't have been touchin' even the high spots.

Old man Parks reaches down and grabs me by the shoulder. For a minute I thought I had been caught between the bumpers.

"Davis," he says, kinda husky-like, as if his flues were stopped up, "the cañon bridge is on fire!"

The track between Bellemont and Flagstaff is so crooked that a snake would break its neck tryin' to follow it. It's down the mountainside, and if a fellow's pullin' a long string, he has to slow down his engine to let the caboose get out of the way.

Less than fifty yards west of the cañon bridge the track goes sharply to the left along a precipice; once around this curve there is a mile stretch, the longest piece of straight track between Bellemont and Flagstaff; but, with no flyin'-machine handy, and that bridge 'nothin' less than the slatted gates of a chasm, it didn't look as if there was a chance to get a signal around that curve.

I'm sure strong for evolution since that Fourth of July. There's no doubt but if you trace the line back far enough, you'll find you're uncomfortably closely related to an ape.

Now, there was Smoke, for instance. When he saw that one cable into which the telegraph-wires were gathered, running alongside the bridge, he reverted to type right away.

There wasn't nothin' human about him. His face wasn't natural; he was just an ape dressed up in a red uniform, goin' across some ravine on a grape-vine.

Before the old man or I knew what Smoke was about, he had stepped out on one of the side girders of the bridge, balanced there a moment, and jumped toward the cable, six feet away. He caught it with his hands, swung back and forth a moment, then started, hand over hand, toward the other side.

I don't reckon I'm from the same race of apes 'cause it made me feel sick and dizzy to see him swinging there, with the flames and smoke trying their best to reach out after him.

I didn't like the sight of it, but I couldn't help lookin'; and as he neared the other side, and his steps with his hands became slower and shorter, I couldn't help a sayin', "My God! If he just had a tail to help him hold on."

'Course, that wasn't nothin' nice to say at that time, but the old man didn't even say that much, and the crowd, which had got up, just stood and watched and held their breath.

He was all but over. On the far side the cable was strung from a pole so that

it was about twenty feet above the ground. He was right over the far bank when the bridge settled and one of the big uprights fell, crashing into the cable, and snappin' it in two as if it had been a string.

I just turned my head away, but that didn't keep me from hearing the sound of a whistle which came down the mountainside.

The crowd began to yell, and I turned around again. Smoke was standing across there, on one foot, about ten feet from the cañon's brink.

His face was bleeding. He didn't look like Smoke at all. He was pullin' off the red shirt of his baseball uniform; and if he heard the cheering, or the roaring of the fire, or the crash of falling bridge timbers, he didn't let on.

Down on his hands and knees he went, and then the smoke and flames from the bridge cut off our line of vision. The old man and I moved back from the heat, and we didn't either of us make any remarks addressed to the crowd.

I don't know how many pay-days went by before I heard the long whistle which told me that Stevens was coming into that straight track, and I knew that the old man and the crowd was waiting for that little *toot-toot* that would tell us Stevens had the signal.

I was just about ready to send in my application for the pension-list when it came.

Well, I looked at the old man, and he looked at me. A moment later an engine pilot, a smoke-stack, and a number-plate poked into view just at the curve—and stopped.

That was a good celebration we had in Flagstaff that night.

All those Eastern folks from No. 22 came round by the trail, across the cañon, and joined us. There was red light from the roundhouse to the station and clear up the main street, and they kept sputterin' as long as the supply at the storehouse held out.

I understand there was some speech-makin', too; and that Fort Apache band sure did cut up with them soldier airs, and Smoke got in in time to see the finish.

We went around the trail, a good two miles, and brought him in with the town



GOT SO SCARED HE JUMPED IN FRONT OF THE BALL.

bus; and as the bus wasn't big enough to accommodate the whole town, everybody stayed behind but the old man and the company doctor.

It was after dark when the bus backed up to the one-room emergency hospital, but that didn't keep me and the rest of the town from bein' there; and it wasn't dark enough to keep me from seein' that Molly Stevens and her father got out of the bus.

Then I remembered that Molly had a habit of making trips with her father when he had to take his run out or be on the road on Christmas, the Fourth of July, or her birthday.

An hour after the arrival of the bus, the old man came out of the hospital, walked over to the depot, where, from

the apex of a truck, he delivered the real superior goods in the way of a Fourth-of-July oration.

He paid his compliments to the spirit of heroism for which America is noted, and made a few remarks regarding one Smoke Dugan, who, at that moment, was resting as easy as one could with a broken leg, a lacerated face, two badly mutilated hands, and minus several inches of skin from various spots on his anatomy.

Those remarks on Smoke started the biggest night of cheerin' I ever lived through. It got so noisy I had to go over to the roundhouse and set down by an engine that was blowin' off, to find a place quiet enough to think.

When the old man got down from the truck after

the Daniel Webster stunt, he says to me, he says:

"Davis, this is a real Fourth-of-July celebration; but, if I am any judge of human nature, the fellow everybody's cheerin' has just lost his independence."

Seein' how at times I have the shadow of an intellect, I knew what he meant, and I says:

"Yes, sir, Mister Parks, and he deserves the best lady in the land."

"And a better job," added the old man, as he walked away into the crowd.

And the ball game! They called it a tie. One to one in the fifth. They're scheduled to play it off next Fourth, and, if I'm any place this side of Halley's comet, I'll be right there. Believe me, it will be some game.



Making Up Lost Time.

BY JOHN WALTERS.

WHILE a general impression exists among laymen that making up lost time means dashing down grades and around curves at a mile a minute, with a wide-open throttle, maximum speed laws and time spotters make such a performance somewhat risky.

How the lost minutes are to be caught up and pushed back into eternity under the engine drivers, is a problem that has brought gray hairs to more than one eagle-eye, and is more than ever the great question that perplexes engineers.

Now and then the regulations are broken and no one is the wiser—but it is only the engineer who saves every second that might have been wasted in starting and stopping, and who plans the speed of his run down to a nicety of seconds and rail-lengths, who really succeeds in these days of fast schedules and limited trains.

The Many Changing Factors Which Must Be Taken into Account by the Man at the Throttle, in Solving the Brain-Racking Problem of Bringing in on Time a Train That Is Late.



THE reputation of having its trains on time is one of the most important assets of a railroad. Delays, however, are liable to occur when least expected. For a thousand and one reasons a train may fail to reach its destination at the moment the schedule calls for. It may be held up in a block by some obstruction ahead, the rails may be slippery, there may be a hot box, a fast freight may get in the way—this has been known to happen—brakeshoes may be tight, and at certain stations time may be lost in the handling of baggage. More frequently than the public dreams of, there is time to be made up. How is it done?

It is by no means as simple as it looks. The days are long past when the man in the cab could drive ahead at reckless speed—"go through the curves instead of around them," as one old-timer said, and rush the train along with the single idea of winning back the lost minutes as

quickly as possible. Not many of the railroads will tolerate anything like that nowadays. There are strict orders against making up time in the spectacular way in which most people think it is done.

Railroad executives have come to believe that if the public thought for a moment that the engineer was allowed to dash ahead with a train and to rely entirely on his own judgment as to the margin of safety, the passengers, present and prospective, would be terrified, and the railroad would get a bad name. "Absolute safety" is now the open motto of railroad managers. Not a single chance or risk must be taken.

Maximum Speed Rules.

Not only are time schedules made so that as large a margin as possible may be left for delays, but over every mile of track there is clearly indicated the maximum speed at which a train can be run. Where there is a stretch of steel, for in-

stance, where time may possibly be eaten up at the rate of eighty miles an hour, the directions are that sixty miles shall be the top speed. If an engineer is found to have transgressed, he suffers a bad quarter of an hour in the superintendent's or trainmaster's office.

But it is always the pride of every railroad to be on time. The New York Central made a public announcement not long ago that over a given period of several months their Twentieth Century Limited, to and from Chicago, had been on time ninety-nine and a fraction per cent of its runs.

Planning a Run.

The Erie takes vast satisfaction in its official statement lately that it was ahead of all railroads coming into New York in making a record of a fraction over ninety-six per cent of all of its trains being on time.

An engineer must not be caught breaking rules. He must run with the avoidance of every risk of preventable accidents. If he wishes to be thought a good man in his business, and a credit to his railroad, he must manage somehow to get his train in on time, to the dot, with unflinching regularity. Thus it is that a curious set of unwritten laws has come into existence among the engine crews. The substance of these is that lost time must be made up somehow.

Stretching the rules in regard to fast running is officially not countenanced, if known, and yet the man in the cab who slips through on time, despite every obstacle, keeps the best run, and ranks highest in the regard of his superiors, from the president down.

As a matter of fact the engineer who is not capable of planning successfully in every way how to get back the lost minutes is regarded as lacking in ability. Hardly one of them, however, will acknowledge this to an outsider. All preface everything they have to say by the statement that they are held down by the official maximum rates of speed.

The executives also make the same point. This is strongly substantiated by the fact that many railroads in the East send out men who might be called time spotters. Their business is to lie in wait

at points which it is believed present peculiar temptations to the engineer for the breaking of speed laws and to catch him in the act.

The result is that the matter of making up time on the Eastern roads—the Western still give considerable leeway—has become a very complicated one. It is a problem that requires the utmost cleverness and skill in emergencies.

The factors of the problem are continually changing; the engine, the track, the weight of the train, the weather, etc. The success of the solution depends more than all else on the personal skill and experience of the individual engineer. Making up time does not consist of a series of hair-raising dashes over long stretches of road. It is done by gaining it back a moment here, another there, and so on.

It takes every atom of ingenuity to do the trick. That chances are taken now and then cannot be denied, but these chances are not so great as they might seem to any one who did not possess an intimate knowledge of the strength and power of track and engine, and a nice regard for the laws of gravitation.

Firemen often brag more about making up time than the engineers. "Finest feller on the road to fire for," one of them will say about the man on whose left-hand side he works.

"He's no hand to make lunch-counter runs. He don't tell the girls at the beanery how it happened, so I have to," he will conclude with a grin.

He Got In on Time.

Making up time is more difficult on some roads and on certain hundred-mile stretches than on others. From New York to Port Jervis, for instance, is eighty-eight miles on the Erie. The usual running time is about two hours and fifteen minutes, including stops. This part of the Erie is full of curves, and if an engineer makes up ten or fifteen minutes on this run it is considered pretty good work.

The record of time regained there is twenty-three minutes. The 142 miles from New York to Albany over the Central is a fairly straight bit of track. "Big Arthur" Allen, who brings the

Empire State Express from the capital down to High Bridge, has left Albany forty minutes late—but here is the story as they tell it around the master mechanic's office:

"The super ripped around that they were forty minutes late in pulling out, and Big Arthur sat in the cab and never said a word.

" 'Now,' says the superintendent, rather sarcastic, 'I suppose you know that this is the Empire State Express you're running?'

" 'Yep,' says 'Big Arthur.'

" 'Well, do you know what time she's supposed to pull into High Bridge?'

" 'Yep,' says Big Arthur again, and that's all he did say. But, holy smoke! how he did run! Jim, the fireman, kept her hot. They say the porters on the private car were scared green. A hundred miles an hour some of the way. She came in on time to the dot."

A Veteran Engineer.

Charles H. Mygatt, of the Erie, has probably run an engine longer than any other man in the United States, and has made up as much time as any engineer in the service. Certainly there is no other engineer who has served on company so long on one division of the same railroad.

It is fifty-three years now since Mygatt got his engine. He started in 1852 as water boy, and four years later became an engineer. Railroads were young in those days, and so were the engineers. Just lately, having reached the age of seventy, he has been retired, but still continues in the railroad's employ, in the yard service at Port Jervis.

Mygatt is the typical mechanical expert. His gray chin-beard gives him an air of picturesqueness. Big-framed, ruddy-cheeked, clear-eyed, he does not begin to look his seventy years. Riding behind the thoroughbred mare he drives at a brisk clip over the country roads recently, he told me of his experiences in making up time.

"Let her alone when she's doing her best," said Mygatt. "Don't drive her at first. An engine's like a horse—the more you worry her, the less she'll do."

The veteran's thoughts began to wan-

der back through a long vista of yesterdays. He could see himself again and again with a heavy handicap of lost time to be won back.

To do this he had to cajole and persuade the vast and complicated mass of steel that he drove. It was not simply a huge bulk of metal that was governed by purely mechanical laws, but something that seemed half-human that needed a pat of approval now and then, and a thorough understanding, if the best results were to be obtained. The machines that he had handled during his more than half a century of service were not so different from the mare that he was driving now.

"Let her alone," he said, "when she's doing her best.

"There's a great difference in men when it comes to running an engine," went on Charley Mygatt. "Never forget that. Time is made by the man who knows how to get the most out of his engine. It's the little things that count then. You might not think, perhaps, how some will use up time at stations. Yet, as much as five minutes may be gained in the skilful making of a stop.

"One man will shut off steam long before he needs to, and his train will come into the station slowly. Another, who understands the road and his engine, is cool and watchful, will keep up full speed to the last possible second. He will calculate so that with not a particle of time lost he will bring his train to a stop precisely where he should.

Saving Every Moment.

"Yes, in a run of a hundred miles you keep figuring little matters like this, and you hurry right along. We know just what we are doing, just what we can do, and when time is to be made up we can tell every second how much we are gaining. An engineer doesn't keep taking out his watch; he can feel to the instant how the miles are being eaten up.

"Keep steam up to the maximum pressure," the old engineer went on. "That means having ready for instant service at every second all the energy there is. That's how to drive an engine, and, let me say that not every engineer appreciates it.

"But you can't make a really good run without it. Everything depends on the man who is firing for you. There are some firemen who can't keep up steam. One will go too fast at the start, and tire before the end of the run; another will be too slow all the way, and so on.

"Making up time looks easy. People who don't know much about railroading think that all a man has to do is to drive ahead, thinking of nothing but keeping at top speed. I might as well let this mare run away; that would be the same principle.

When to Go Slow.

"I know what an engine can do, even better than the speed I can safely get out of this horse. When I have had time to make up I have planned it all out from the start.

"Risk? No, not if a man's competent and knows his business; track, maximum speed orders, and all that. It doesn't do for a man in the cab to get the reputation of being reckless.

"A little of that, and when anything does go wrong you can imagine where the blame lights first. No, a man's got to make good in some other way—by thinking and calculating. A railroad wants a man who can bring his train in on time without taking unusual chances.

"When you're starting out to make up time there are certain places where, for your own safety, you've got to go slow. An engineer must know these. Sometimes he doesn't. One day, on this very division of the Erie, I was running at a pretty good clip. This part of the road is full of curves, and there is one that was pretty bad.

"The train I was hauling was an important one. We had started late, and there was a lot of time to be made up. My engine was in the best of condition. We struck that curve a bit too fast. She made a jump and came down on the rails with such a jolt that I thought she had broken every spring in her.

"Yes, she came down all right, and we got in on time, but I was a little nervous for a second or so. But I knew what my engine could do, and she didn't disappoint me.

"That's the whole secret of running and making up time. You must know your engine like a wife. Then, when it's necessary, she'll come up to the scratch. You can't stay on any road for fifty years without understanding that. Each engine is different from all the rest, the same as women are, and they even vary in temper from day to day.

"Another thing to remember is that a good part of the secret of making up time is never to attempt it until you know that your engine is in just the right condition. The engineer must test her as he starts. He can usually tell in a moment or so. Everything depends on how she responds. In a few miles you know whether you can count on her to do her prettiest.

"Some years ago I had a party of officials of the road, and it was necessary to make some fast time. As we pulled out of Jersey City I planned just how I was going to do it. I knew we would have to take some of the curves at the maximum of speed, and I did it without exceeding a fraction, though it broke all the dishes in the diner.

"One safe way to make up time—the one that is most commonly followed—is to strike the best gait you can, and keep it up. It's surprising how many minutes you can save by close attention to that simple method.

A Narrow Escape.

"It's harder nowadays to make up time than it used to be. Years ago the schedule for most of the runs used to be about thirty miles an hour. That left a big margin when you were behind time, as it was possible to hook her up to sixty or seventy miles an hour here and there.

"Now, those same runs are scheduled at forty or forty-five miles an hour, and at a good many points where you might gain time there are maximum speed orders out against you. It takes a keen engineer to do the trick of making up ten or fifteen minutes in a short run. Out West, though, on those long stretches of level track, it's different.

"In the course of years there are some exciting moments. Yes, they do come, but engineers never think much about them once they are past. Just a part of

the day's work. Here's one experience I happen to remember:

"It happened some years ago when I was a comparatively young man. We were making up time in great shape. No maximum speed rules in those days. It was up in the mountains, where the simple and compound curves are as thick as blackberries in summer.

"I wasn't taking any chances, but I was making my engine do the best that was in her. Danger? No, not when the engineer knows his business. Everything depends on that. We had just hit a compound curve, and were negotiating the first twist when the front drivers jumped the track.

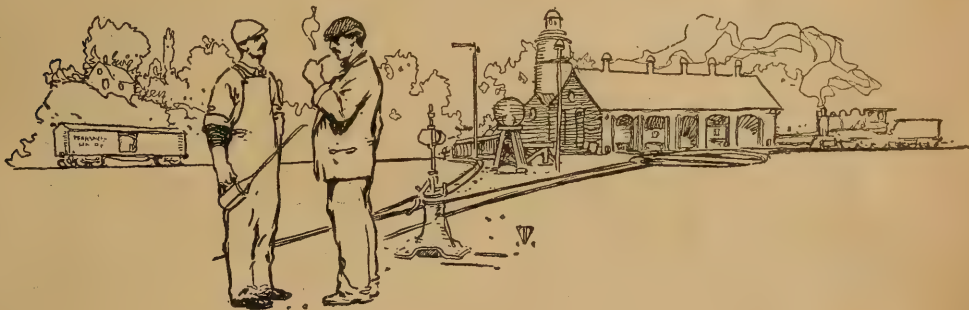
"Some minor official of the road was with me in the cab. I don't remember now just who. I only recall how scared

he was. I suppose any one who didn't understand engine driving would have been. It looked worse than it was. It simply required a moment of careful handling.

"Wait till we get on the other curve," I yelled; 'can't do anything on this track.'

"With the front drivers still off the rails we whirled around that curve, and on to the next, and then, as my friend in the cab held his breath, the front drivers dropped back on the steel, and the engine jogged along the same as ever.

"I wouldn't care to try to duplicate that feat every day in the week, however. When those things happen we seldom talk about them afterward. We forget them, and they don't get on the official records."



TRAIN DESPATCHING BY TELEPHONE.

Growth of the New System Which Doubles the Speed of Message Transmission and Gives Fewer Opportunities for Operators to Make Mistakes.

ONE of the most important innovations which has taken place in the history of railroading is that being put into effect now by many of the railroads throughout the country, namely, a new method of despatching trains, says K. W. Endres in the *Railway and Engineering Review*. The telephone is gradually replacing the telegraph for this service on many of the big railroad systems in the United States, and with the change, departs one of the most conspicuous features that has accompanied railroading since its early beginnings.

The aim throughout in train-despatching is to eliminate mistakes, and the result of the effort which has been extended along

this line is in the development of experienced men and first-class machinery to handle numbers of trains in all kinds of complicated and intricate maneuvers without accident and without delay.

Time is a great essential in handling train movements. With the telegraph a despatcher has always been limited to the speed at which the ordinary operator can receive messages and work the key; and this speed, even with the most expert men, would not average more than fifty words per minute.

With the telephone it is easily possible to speak one hundred words per minute, and the gain in time is obvious. Furthermore,

the operator at the way station writes it down as he receives it. The telephone, therefore, eliminates one chance for mistakes which has been existent with the telegraphic method, in that the despatcher sent his message and then wrote it out as it was repeated back to him by the way stations. Now the despatcher can call in as many station operators as he wishes, can give them the train orders, and have each man repeat the order back to him, word by word, spelling out the stations and figures and underlining each word as it comes in.

The actual results in the two years the telephone has been in use in this country for this purpose have shown that not a single accident has occurred due to the telephone method of despatching.

Another great advantage which the railroads did not appreciate until after they had their new system in operation, was the gain that resulted in discipline and cooperation between the men.

It is a curious phase of human nature, but it seems to be a fact, that when a way sta-

tion operator can call up the despatcher and say, "Bill, No. 32 just passed," he feels much better acquainted with that despatcher than if he said the same thing by means of a series of dots and dashes. One despatcher said that he had never been "mad" since the telephone system had been put into operation.

The system about to be installed on the Georgia Railroad will equip the division between Augusta and Atlanta, Georgia, a distance of 171 miles; and from Camak, Georgia, to Macon, a distance of 74 miles.

Other railroads in the South which have been active in adopting the telephone method of handling train movements are the Southern Railway, the Chesapeake and Ohio, the Norfolk and Western, the Seaboard Air Line, the Atlantic Coast Line, and the Carolina and Ohio Railway.

The system employed by all these railroads is practically uniform throughout. It is what is known as the Western Electric-Gill system and employs the Gill selector with Western Electric telephone apparatus.

THIRD OLDEST PENNSY EMPLOYE DEAD.

ANDREW NEBINGER, the third oldest pensioner on the Pennsylvania lines east of Pittsburgh and Erie, died on April 29, at his home in Harrisburg, Pennsylvania, after an illness of fifteen weeks.

Mr. Nebinger was ninety-one years old on March 17. He was a native of York County and came from a long-lived family, his mother having been eighty-seven at her death, and his father seventy-nine.

His name has been unique on the pension rolls of the Pennsylvania Railroad Company, says *The Patriot*, of Harrisburg, in an interesting account of the veteran's life, because of the fact that he was one of the three men whose ages are more than ninety years, and was one of the first benefited when the company established its pension fund in 1900.

He also had the distinction of having voted for William Henry Harrison, on the Whig ticket, and of having eaten dinner at Harper's Ferry with Henry Clay.

Mr. Nebinger came to this city with his family from Lewisburg, his birthplace, in 1860, and for over fifty years resided in his

present home on North Sixth Street. His wife died eighteen years ago.

At the outbreak of the Civil War he was employed by the Pennsylvania Railroad as a carpenter. He entered the government service and took an important part in McClellan's campaign. At the close of the war he again entered the railroad service and continued until retired. He was employed as a master carpenter, having built a number of the bridges between Harrisburg and Philadelphia.

The other two employees over ninety years of age are Andrew Abels, of Philadelphia, who was born May 23, 1817, and retired January 1, 1900, and David B. Price, of Sunbury division, born November 8, 1818, and retired at the same time.

The death of Mr. Nebinger takes away the second of the Pennsylvania's oldest men within a year, the first being James Cullen, of Spruce Creek, who died last summer.

He is survived by one daughter, Mrs. Henrietta Lucas; four grandsons, one granddaughter, Miss Henrietta L. Bishop, and two brothers, Lewis M. and Edwin Nebinger.



WITHOUT LIGHTS.

BY J. AUBREY TYSON.

Two Travelers that Were Forced to Become a Law Unto Themselves.

SYNOPSIS OF PREVIOUS CHAPTERS.

FRED ERSKINE visits the general manager of the Chicago, St. Louis and Western Railroad, Andrew Warrington, with a letter from his father, who was an engineer on the engine Warrington fired. It is understood that when Fred has graduated, Warrington will place him. He now finds that he is unable to do so. Bonds of the value of half a million dollars have been stolen, and suspicion points toward Warrington's son. Warrington, senior, is suspicious of the motives of Montresor, who has gained the friendship of Joe Warrington, and apparently of Louise, Warrington's daughter. The old man gives the task of solving the disappearance of the bonds to Erskine. He is to work absolutely in the dark, receiving no recognition from Warrington, using any means he wishes. He is to take Louise to the opera that night, but Louise, suspecting him, has the coachman drive to Lincoln Park, and there Fred is assaulted by a man whom he believes to be Montresor. Erskine is walking on the lake shore, when he meets Barney McGrane, the discharged coachman of the Warringtons, who is very loyal to Miss Warrington. Erskine succeeds in convincing him that he is Miss Warrington's friend, and the coachman agrees to work with him. Others arrive, and Erskine gathers that it is their intention to kill Warrington. He meets the young fellow, who agrees to confide in him, but as Erskine leads the way from the shore Joe Warrington is mortally stabbed. During his last moments he discloses to Erskine that the bonds are being expressed by Montresor to Tacoma, in a typewriter machine-box. Erskine and Barney decide to leave the city and follow up the box containing the bonds. They arrive at Wapita Falls. Barney sees Louise and her mother alighting from the train, and imparts this intelligence to Erskine, who, meanwhile, has discovered the box labeled for Tacoma. Securing tickets for the train on which this box has been shipped, he finds the two women on board, and visits them in their stateroom, where he tells them of Joe's death. The two women leave the train near the Washington State line and Erskine fears that they have stopped to telegraph to Warrington, accusing himself and Barney of bringing about the young man's death. Determined to recover the bonds at all costs, he decides to hold up the train behind which he knows carries Montresor and the express box which he is after. He and Barney slip from their Pullman as the train nears Two Rivers, and securing a hand-car, set out for the tunnel-mouth they have selected for the hold-up. On the way the hand-car runs away and upsets while they are trying to prevent its crashing into a freight-train ahead, but both escape with a few bruises.

CHAPTER XVI.

A Fateful Encounter.



HEN McGrane arrived at the spot at which the Altoona man was awaiting him, Erskine bade him put down the suit-case he carried,

then slipped a revolver and cartridge-belt into his hands.

Speaking deliberately, Erskine said:

"As I have told you, this revolver contains nothing but blank cartridges. Fire these whenever you think it necessary to intimidate persons who may be disposed to offer resistance. The belt is filled with ball cartridges, which are not to be used, however, until we get away from the train. Is this clear to you now?"

"Yes, sir," replied the Irishman dubiously. Then, after a pause, he added: "But if I see Montresor—"

"If you see Montresor, be especially careful that he does not recognize you,

Began in the March Railroad Man's Magazine. Single copies, 10 cents.

and, above all things, do not forget that your revolver must hold nothing more than blanks. All I will take from the train is stolen property, which I intend to return to its rightful owner. We must score a bloodless victory."

"And when the train stops where am I goin' to begin?" asked McGrane.

"You will get to the cab of the locomotive and cover the engineer and fireman. Neither of these must touch a hand to a lever until I enter the cab and give them the word to do so. When I appear you will leave the rest to me. Neither of these men must be injured, for I will have use for them when I get from the express-car the box I pointed out to you at Wapiti Falls. Now, put on this mask, and tie it firmly."

"In a moment both men were masked. From his suit-case Erskine now took a couple of signal torpedoes. One of these he placed on one of the rails; then, bidding McGrane follow him, he picked up his suit-case and ran on about a hundred yards. There he laid the second torpedo on a rail.

With McGrane at his heels, the Altoona man quickly continued on his way up the grade. Once he halted, and, striking a match, he glanced at his watch. He saw that the Cascade flier was now due at Two Rivers.

The two men jogged on until finally they came to the top of the grade. There Erskine stopped and listened. All was still. Between the two rails the Altoona man now placed one of the two little tin cylinders he had taken from his suit-case a few minutes before. The second cylinder he left in his pocket.

"Now, Barney, keep a grip on your suit-case until you are beside the cab of the locomotive," Erskine said. "When you climb up on the engine, drop the case on the ground beside it and cover the two men with your gun. Go a hundred paces along the track and wait for the train. I will join you as soon as I fire this flare."

McGrane had scarcely left Erskine's side when, from the east, there came the long, quivering shriek of a locomotive.

Erskine's heart seemed to leap to his mouth; but, quickly mastering himself, he drew out a match-box and dropped on one knee beside the little cylinder.

Two minutes passed, then Erskine heard the whistle again. He inferred that the train, having passed Two Rivers without slackening speed, was now at the top of the grade down which the hand-car had rushed. From his match-box he extracted several matches, and, leaning forward, peered back along the line.

Then, faintly at first, but growing brighter each moment, he saw the glow of the headlight of the approaching train! And now the desperate man felt as if some remorseless hand suddenly had sundered the last tie that bound him to the cleanly things of life.

There seemed to come to him the knowledge that all the ambitious plans of his youth had gone for naught. Bereft of honor and self-respect, he tremblingly awaited the brand of criminality.

Into the honest, rugged features of his loving father he could look no more. Failure would mean a long period of confinement behind prison-bars. Success—how little his reward would be, after all!

He was wavering now. With a wild, exultant thrill he suddenly realized that it was not yet too late to draw back from the desperate act he had meditated. Then he seemed to see again the wan, despairing face of Andrew Warrington, and he remembered all that Andrew Warrington had done for him.

In his ears echoed the words of the general manager's dying son: "My honor, and my father's." And he wondered how—if he failed in his quest—Andrew Warrington would explain to Louise his reasons for causing her to become acquainted with Frederick Erskine.

For several minutes the headlight of the onrushing locomotive had disappeared from his view, but the rumble of the approaching train was growing louder in his ears. Then, like the crack of a mighty whip, goading him on to action, came the detonation of the first of the torpedoes.

He struck a match, and held it over the top of the little tin cylinder between the rails. Before the match went out a little ruby glow began to spread beneath it.

Brighter and brighter grew the reddish light. Erskine rose and tottered

from it, and, as he ran, the detonation of the second torpedo sounded in his ears.

It suddenly occurred to Erskine now that he had a race to run, and, gripping his suit-case, he plunged on madly. From behind him came the whistling of air-brakes, and a dull, grinding sound that assured him that the train was slowing down. The glow of the flare he had lighted was so bright that he dared not look over his shoulder lest the engineer of the locomotive should see his masked face, and prepare to offer effectual resistance or decide to put on speed again.

At length he became aware of the fact that a dark figure, a score of paces farther on, was crouching beside the track, and he knew it was McGrane. Then the red light vanished suddenly, a whistle sounded sharply, and a broad stream of yellow light shot ahead of him along the track.

The locomotive of the Cascade flier was close behind him. Turning abruptly, the Altoona man leaped from the track, and a moment later the great, hissing locomotive slowed down beside him.

Erskine looked for McGrane. The Irishman already was in action, and was only four or five paces away.

"All right, sir!" McGrane called reassuringly; then, reaching up to the hand-rail of the locomotive, he swung himself up to the cab.

For only a moment did Erskine hesitate; then, as he heard the Irishman shout "Hands up!" to the occupants of the cab, he dashed down to the express-car.

The incidents that followed happened quickly, and ever afterward they seemed to Erskine like those of a nightmare. How he entered the express-car he did not know. He remembered seeing around him two or three blanched faces as he looked at them over his revolver. He had asked the occupants of the car if they had a typewriter aboard. This he had assured them was all that he wanted, and as he spoke he knew by the expressions on the faces of the men he addressed that they believed him to be mad.

Satisfied that he was a dangerous lunatic, however, they quickly decided to humor him. One of them pointed to a box in one of the corners of the car. On the box were the words, "Anxell Typewri-

ter," and the address he had read in the baggage-room at Wapiti Falls.

He directed the men to take it to the side door of the car, and they obeyed him. With a thrust of his foot he sent it out into the night.

"When I go close the door, and do not open it again until you are out of gunshot," he commanded.

As he finished speaking he left the car, and the door was closed behind him. Moving quickly, Erskine grasped the rope handles of the box and hurried with it to the front of the train. There he threw it on the platform at the doorless end of the baggage-car. This done, he tossed up his suit-case, and McGrane's beside it, after which he hurried to the locomotive and mounted to the cab.

Just as he was about to enter the cab a dark figure moved toward him, and Erskine suddenly realized that he was looking into the muzzle of a revolver.

"McGrane!" exclaimed the Altoona man in a warning voice.

With an oath, the dark figure leaned toward him. From the muzzle of the revolver leaped a flash of flame that almost blinded him, and the report of the revolver pistol's discharge rang in his ears. As he grappled with the man who had fired at him, Erskine saw that he was slighter than McGrane.

Erskine's left hand had closed around the right wrist of his adversary, and his right hand gripped the stranger's throat. It required only a second or two to convince Erskine that he was the stronger of the two, and, satisfied of this, he relaxed his hold on the throat of his assailant.

With a quick movement of his right hand, he grasped the still smoking revolver, then swung it against the other's head. With a low groan, the stranger, clutching Erskine's mask, collapsed and sank to the floor of the cab.

Realizing that the revolver which he had just taken was the one, filled with blank cartridges, which he had given to McGrane, Erskine now drew from his belt the weapon that he had carried at the time he entered the express-car. This was loaded with ball cartridges, and, dominated by a spirit of desperation, he was resolved to shoot any one who now attacked him.

Already his game seemed half lost, for, unmasked as he was, he was in imminent danger of being seen by some one who would be able to describe his features to those who, within a few hours, would essay the task of running him down.

By the light of the lantern that hung above the gages, Erskine now saw the finish of a struggle that had been waged on the fireman's side of the cab. Felled by a powerful uppercut on the chin, McGrane lay gasping in a corner, while the brawny, square-shouldered man who had put him there turned sharply to confront the new intruder.

Erskine was thinking quickly and acting surely now. Resolved that no aid should come to the engineer and fireman from the cars behind him, he stepped across the body of the man he had knocked down and opened the throttle.

A thrill of exultation passed through him as the great locomotive began to move. A moment later his revolver was leveled at the head of the black-capped man, in the blue jumper and overalls, who had mastered McGrane.

"Hands up, or I'll let you have it!" Erskine said, in a low, deliberate voice.

"Well, blaze away, you—" began the other, leaping forward.

But he stopped—stopped with a hand extended toward the weapon, on the trigger of which Erskine's finger was trembling—stopped before it was too late. Moved by a common impulse, each of the staring men drew back, and the hand that grasped the revolver slowly fell to Erskine's side. Over the features of both spread a look of horror, and their eyes grew glazed and wide.

The blue-clad man was the first to break the silence that fell upon them.

"Fred—Fred—oh, Heaven—my son!" he stammered.

And the other murmured feebly: "Father!"

CHAPTER XVII.

The Hand on the Throttle.

AS motionless as if carved of stone, father and son continued to gaze upon each other with expressions of horror that seemed to deepen as the moments passed. From a corner of the cab came

a half-stifled groan from the lips of the still unconscious McGrane. On the elder Erskine this appeared to have no effect. To the younger man, however, it came as a call to action, and again he reached for the throttle lever.

"Stop!" old Sam Erskine commanded hoarsely.

The son opened the throttle wider. The father laid a hand on his arm.

"Boy—boy—are you mad?" he muttered.

Fred shook his head. "No," he answered gloomily.

The old man pointed to the corner in which McGrane was lying.

"Is that fellow—the fellow with the mask—a friend of yours, Fred?" he asked in shaking accents.

The young man nodded. The fingers of the engineer sank deeply into the arm they grasped. The locomotive was rapidly gathering headway now. The rumble of its wheels was growing louder, and the two men swayed as it took a curve. Old Sam's eyes wandered to the body of his fireman, who lay with his feet in the cab and his head and outstretched hands on the floor of the tender. The eyes of the old engineer grew narrower.

"And it was my own flesh and blood that struck down Ned Latlock!" he muttered. Then his face grew whiter and more tense as he added: "Is that your black mask that's a lyin' there beside him?"

The younger man's only answer was a nod. The old engineer drew back, and his trembling hand fell from the arm which it had been gripping.

"Fred—Fred—boy—we've been dreamin', ain't we?" Sam Erskine asked in pleading accents. "There's somethin' snapped in this old fool head of mine, and things is runnin' queer. It ain't true, is it, Fred, that you—that I—"

Fred was on the engineer's bench now, and was peering through the window. His left hand grasped the throttle-lever. A great numbness had settled on his faculties, and he moved mechanically.

The old engineer, breathing heavily and with his features twitching spasmodically, waited for an answer. He waited in vain. From the compressed lips of his son there came no sound. Walking

unsteadily to the young man who now occupied his seat, Sam laid a hand on his shoulder.

"It ain't no dream, son, I guess," he said huskily. "Now, what have you got to say? Yes, you've got to speak. When I'm on duty I ain't got no mind or heart for anything in all the world but my engine, track, and signals.

"When I'm out of my cab my mind, heart, hopes, and pride are all for you. I'm on duty now, and I'm goin' to run this engine; but first I'm goin' to find out why two masked men held her up and laid out Ned Tatlock. And so, by Heaven, you'll speak, or you and me will start right now for Hades together!"

With blazing eyes and clenched fists, the old engineer drew back threateningly. Fred's face was livid as, turning, he looked over his shoulder at his father; but he met the elder man's gaze unflinchingly.

"Speak!" the engineer repeated. "Why did you hold up this train to-night?"

In the ears of the young man were ringing the words the general manager had spoken scarcely more than two days before.

"Your relations with me must not be known to any person other than ourselves."

And, like his father's, Fred Erskine's duty was clear. Andrew Warrington's confidence must be respected, and his orders obeyed to the letter.

"Speak, boy—speak!" commanded Erskine, in a strident voice. "I ask you, for the last time: Why did you hold up this train?"

With the gaze of his bloodshot eyes still on the face of his father, Fred Erskine answered grimly:

"Because the Dale express-car, just behind you, was carrying stolen property—property which I have been sent out here to recover."

"Was it stolen by the Dale Express Company?" the old man demanded sharply.

"No, but the Dale express was acting as carrier for the thief."

"Then, by Heaven, it is with the thief you have to reckon—but you've got to reckon first with me. While the Dale car is runnin' as a part of the Cascade

Flier, the Chicago, St. Louis and Western is responsible for its safe delivery at Tacoma.

"If you've took anything out of the Dale car, it goes back at the next stop we make, or into the hands of the sheriff you go when we pull into Weatherbee. This is my first run as its engineer—and, by Heaven, she's goin' through on time. That bench is mine, and you'll get down from it. Get down, I say!"

Pale and haggard, Fred Erskine rose as his father took a determined step in his direction. Suddenly the old man hesitated, and darted a swift glance at the closed door of the fire-box. Suddenly he was kneeling beside the prostrate form of his fireman. His eyes gleamed wildly as he stood upright again.

"Well, since you've done for him, you've got to do his work," growled the engineer. "Draw him in and lay him alongside that four-flushing gun-fighter of yours, then get hold of a shovel and heave in the coal. Come—step lively! There ain't nothin' more to say until we get to Weatherbee."

Fred stepped down, and a moment later his father, with a hand on the throttle, was peering out into the darkness. Without pausing to cast off his coat, Fred drew the inanimate fireman to one side of the cab, and then flung open the door of the fire-box.

Once in the course of the next five minutes old Sam Erskine looked over his shoulder. His features were white and grim, but the expression of anxiety in his eyes gradually gave place to one of transient satisfaction as he observed with what vigor his brawny son was addressing himself to his task.

Wider and wider the engineer opened the throttle, and faster and faster plunged onward, the great swaying steel monster beneath him. The Altoona man—coatless and hatless now, and with streams of perspiration streaking the grime that was settling on his face—kept watchful eyes on the gages, and never permitted his energy to flag.

Once, while the interior of the cab was aglow with the fierce light that issued from the open door of the fire-box, Fred saw that McGrane had recovered consciousness and, leaning on one of his elbows, was gazing at him with wonder-

ing eyes. Nodding glumly, the young man went on with his work.

Fred Erskine had been thus engaged for about ten minutes when a low exclamation from Tatlock, the fireman, caused him to look in his direction. Rising with difficulty, Tatlock leaned forward and looked malignantly at the man who was in the act of throwing another shovelful of coal into the fire-box.

"What the deuce are you doing now?" the fireman demanded, in a surly tone.

"It's all right, Ned," said the engineer, in a hollow voice. "Just you keep still and pull yourself together until we get to Weatherbee. This boy knows what he is doin' and he's takin' his orders from me. There ain't goin' to be no more trouble, Ned—for you."

There was a pause, then Tatlock asked: "Are you all right, Sam?"

"Yes, son—all right," replied the engineer, but there was a gulping sound in his throat as he said it.

Fred's voice was the next to break the silence.

"What time do we get to Tyrcone?" he asked.

"An hour and ten minutes" answered the engineer, shortly.

"That is where you pass the Coast Express, is it nof?" the Altoona man went on.

"Yes."

"Are you scheduled to stop there?"

"No. Our first stop is at Weatherbee."

Fred looked speculatively in the direction of McGrane. The Irishman was watching him closely, and, fully recovered from the effects of the blow which had rendered him unconscious, seemed now to be expecting some sort of a signal from the man under whose direction he had been working.

Fred Erskine glanced again at the gages, then, leaning on his shovel, he turned to the engineer.

"We'll have to slow down at Tyrcone," he said, doggedly.

As the old engineer turned slowly in his seat, his pale face was working convulsively.

"Not this trip, son," he answered in a shaking voice that was scarcely audible above the clatter and roar of the speeding locomotive.

Trailing the shovel behind him, the young man stepped to where his father was sitting and laid a hand on one of his shoulders.

"My friend and I must leave this train at Tyrcone," he said.

"We make no stop this side of Weatherbee," reiterated the engineer, turning again to his window.

"Come, father—" began the son, in a tone of conciliation.

"We stop at Weatherbee," shouted the engineer, determinedly, above the roar of the engine.

"Well, listen to me," Fred commanded in a tone that caused his father to turn his head again. "The law, more humane than you, presumes a man to be innocent until his guilt is proved. This presumption is all I ask of you. You demand a proof of my innocence at a time when those who are able to speak in my favor, and who have closed my own lips, are too far away to aid me in the situation that confronts me now."

"The situation that confronts you now is two black masks, two revolvers, a held-up train, a laid-out fireman and ten minutes lost from the schedule of the Cascade Limited," thundered the engineer. "And there's more. You've said you've took somethin' out of the Dale express-car that the Dale was responsible for the delivery of."

"I say 'back it goes, or into the hands of the Weatherbee sheriff go you and the gun-fighter what wore mask Number Two.' Well, that's all, I guess—except that we go by Tyrcone affyin', and that the first stop of this here train is Weatherbee—'cordin' to train orders."

"Then, by Heaven, you'll be playing into the hands of—"

"I'll be playin' into the hands of the Chicago, St. Louis and Western Railroad, lad, and that's why I'm right here at this throttle."

For several minutes Fred's secret trembled on his livid lips, but duty scored a partial triumph.

"No," he answered, breathlessly. "All unconsciously, you are in league with a criminal—a thief and a murderer—and you are betraying the interests of the very company you are trying to serve. From the car behind us I took only a box. The person to whom it was con-

signed will never dare complain of its loss, for he is none other than the person who stole it from its rightful owner. It is to that rightful owner that I purpose restoring it."

The light of hope and restored confidence flickered over the old man's face, but in a few moments it was gone again.

"Justice don't wear no black masks, nor hold up trains to get what's comin' to it, son," the engineer retorted. "Justice stands up, fair and square, and gets its own in the bright light of day. And so—and so—well, son, you see there ain't no use in talkin'. This here train don't slow down until she gets to Weatherbee."

"You think then, that—" the son began.

The old man shook his head.

"It ain't for me to do no thinkin'," he answered, moodily. "An engineer on duty has got to be all eyes. Thoughts, son, ain't his line of business. Whatever deep thinkin' is to be done is done by them what runs this road from offices. Until them thoughts gets worked into train orders, they're no business of an engineer's."

"I got eyes for train orders, cab-gages, track-signals and them there slots in the quadrant, and that about lets me out when I'm on a run—unless black masks and guns get in my way—and so, unless I see a signal put against me, this old girl of mine keeps right on until she gets to Weatherbee."

It was not fear that set Fred Erskine trembling as he drew back, nor was it enforced resignation that chilled his mind and heart. He had been addressing a man he never had known before—a man who had the face and figure of his father, but, withal, a heart of steel and the cold, remorseless voice of an executioner. And yet he knew that under any circumstances other than these the old man at the throttle would lay down his life for him.

"You won't trust me, then?" the young man cried, reproachfully.

Through the forward windows swept a cloud of smoke and stinging dust which had been belched from the smoke-stack of the wildly rushing engine, and the deafening roar that followed plainly indicated that the locomotive had plunged into the darkness of the Dumbell tunnel.

Further conversation was impossible now, and again Fred Erskine, throwing open the fire-box door, resumed the work of throwing in coal. On the left of the cab, McGrane and the fireman, each ignorant of the purpose of his chief, sat in gloomy silence.

From time to time the engineer glanced at his clock and gages, but, for the most part his gaze was directed along the track ahead of him. At length, the loud roar ceased suddenly, and once more a rush of fresh air swept from the cab the choking smoke and dust that had filled it. The tunnel was behind them.

Raising his arm, Fred Erskine passed his sleeve over his forehead and freed it from the perspiration which was streaming into his eyes. He judged that the locomotive was rushing onward at the rate of sixty miles an hour. If this rate was maintained, the train would be at Tyrone in fifty minutes.

For the next half hour the four occupants of the cab were silent. Fred worked indefatigably; but, as he worked, he kept watchful eyes on the clock. At length he motioned to McGrane to come to where he was standing.

As the Irishman rose, Tatlock leaped to his feet and looked at him threateningly. McGrane hesitated and as he returned the fireman's gaze, his eyes gleamed balefully.

"Look sharp, Sam!" cried the fireman to the engineer.

Sam Erskine turned quickly. His son addressed McGrane.

"There's a water-tap and basin in the tender," he said, sharply. "Get rid of some of that grime and blood, and wait by the tap for me."

"Is it all right, Sam?"

The engineer nodded and again looked through his window. McGrane shuffled out to the tender. Tatlock reluctantly settled himself in the fireman's seat, while Fred Erskine, leaning on his shovel, looked gloomily at the closed door of the fire-box.

Five minutes passed, then Fred moved slowly to where his father was sitting and laid a hand on his shoulder. The old engineer turned sharply. He saw that the left hand of his son still rested on the handle of the shovel and that his right was grasping a revolver.

"We slow down four hundred yards this side of the Tyrcone station, or—" the Altoona man began, but the expression that he saw on the face of his father stopped him. It was such an expression as hunters have seen on the faces of mortally wounded animals which, knowing that death is inevitable, turn their dazed, wondering eyes upon the agents of their destruction.

"Or you go on alone," the young man finished.

The eyes of the old engineer grew wider. "You—you mean that you—that you—" he faltered.

"I mean that if this train takes me past Tyrcone to-night, it will take me past as a corpse," the young man answered calmly.

For a minute longer each looked into the other's eyes. Then old Sam Erskine slowly turned from the son who had been his pride.

Slipping the revolver into a pocket of his trousers, the Altoona man drew back. Again the fireman had risen and was watching him warily.

"Here, Tatlock, is your shovel," Fred said, quietly. "I think you are able to use it now."

As the fireman took the shovel from his hand, Fred Erskine turned and, picking up the coat, collar and neck-tie he had removed shortly after he had assumed the duties of a fireman, he retreated to the tender. There he found McGrane wiping his face and hands on a handkerchief.

Without speaking to his companion, Fred filled the basin with clean water and then proceeded to remove the grime that had settled on his skin. When this was done, he put on his collar and neck-tie and then donned his coat.

"Now let's get back to the tender," he said in a low voice to the Irishman.

As he led the way up the sloping mound of coal toward the rear of the tender, the young man paused and looked over his shoulder.

At this moment Tatlock threw open the door of the fire-box, and the white glare that issued from the fiery furnace revealed to Fred Erskine's eyes the sturdy figure of his father at his post. The old engineer's chin was on his breast, and, as he stared out into the night, one

of his trembling hands lay idly on the lever which was the lever of his son's fate—and his.

CHAPTER XVIII.

Caught in a Corner.

THE descent from the top of the big tender to the platform at the end of the baggage-car constituted an undertaking from which even the stout heart of McGrane shrank aghast. Erskine accomplished it successfully, however, and the Irishman followed him.

The car on which the two men now found themselves was a blind baggage. Here, on the platform, the Altoona man found the box and suit-cases he had placed there at the time he held up the train.

From one of the suit-cases, Erskine now produced a screw-driver and hammer with which he had provided himself before he left Chicago, and in a couple of minutes he had succeeded in removing the cover from the box.

With a rapidly beating heart, the young man began to examine the contents of the box which he had made such arduous efforts to obtain. Immediately beneath the cover he came upon a bunch of old newspapers. Casting these aside, he found beneath them five packages of bonds, of unequal sizes. These he quickly transferred to the suit-cases, after which he flung the typewriter-box from the train.

Glancing now at his watch, Erskine saw that the train was due at Tyrcone in five minutes. Once or twice McGrane had spoken to him, but the Altoona man scarcely seemed to hear his words, and they were unanswered.

The train was speeding on at the rate of about fifty-five miles an hour. Far darker than the night were the young man's thoughts as he sat on the car platform with his grim face turned to the dark mountains which the hurrying train was passing. Threatened with prosecution on the charge of having been connected with the death of Joseph Warrington, and branded as a criminal by his father who seemed resolved to sacrifice his only son to a stern, but misguided, sense of duty, Frederick Erskine felt as

if every door of hope was closed against him. The world seemed to have contracted until it was no larger than a prison-yard, and he felt that no matter where he might turn, he would be unable to escape the vigilance of scores of unseen eyes that were watching his every movement.

The unfortunate man knew, too, that if his father proved to be so unrelenting as to carry him on to Weatherbee, all hope of escape would be vain. Even if his father kept silent on the subject of the hold-up, the men in the express-car would speak; and Tatlock, the fireman, would give a careful description of the two men he had seen unmasked.

All this Fred had realized when, approaching his father, he had threatened to commit suicide if he should be carried beyond Tyrone, where the West Coast Express, which he had left at Two Rivers, now was awaiting the passage of the Cascade Limited. Within his grasp he held the bonds which represented the honor of the Warrington family, and yet the restoration of those bonds to their proper place was to be prevented by his own father's unrelenting sense of duty.

And now the young man began to reproach himself for his failure to take his father into his confidence. He was satisfied that if Andrew Warrington had foreseen the situation that confronted his agent, he would have been willing that Samuel Erskine should be given as much information as might be necessary to enable him to act with more intelligence.

But it was too late now to effect this compromise with the letter of his instructions. While he had found it possible to descend from the back of the big tender to the platform of the baggage-car, he was manifestly unable to return by the way he had come.

He was resolved that if he passed Tyrone, he would carry out the threat he had made to his father. Gradually it dawned on Erskine's mind that the locomotive was slackening speed. The young man stiffened suddenly, and he slipped back into his trousers-pocket the revolver he had half-drawn out. The spirit of hopelessness that had dominated him only a moment before now gave place to mingled exultation and self-reproach.

Sam Erskine, the father, had triumphed over Sam Erskine, the duty-bound engineer, and the son had been given the benefit of the doubt. Gripping the handles of both suit-cases, the Altoona man turned to McGrane.

"When the train slows down, we've got to get away from it as quickly as we can, Barney," he said in quick, nervous accents. "On a siding, somewhere about the station, is the West Coast Express, which we left at Two Rivers. We must board it again."

"There is only one chance in ten that we can get to our berths without being seen, but we must take it. Keep close to me, and let me do all the talking."

"We've got to make another jump from the train while it's movin'?" asked the Irishman dubiously.

"Yes, and pray Heaven that it may be the last," Erskine answered suddenly.

"There ain't no use in prayin', sir," growled McGrane; "for after we jumped at Two Rivers, I prayed that never again might we take another header such as that. And that there prayer was scarcely dry on my lips when we went a kitin' and a sommersettin' from the hand-car."

"You'd better take one of these suit-cases," said Erskine half reluctantly. "Keep a tight grip on it, and don't let go when you strike the ground. This time I am going to let you jump first. When you find your feet, come after me as soon as you can. There will be no time for me to go back to look for you."

"All right, sir," the Irishman assented; then, after a pause, he added: "You've changed your mind, I guess, about Miss Warrington chargin' us with murder and havin' the train searched for us."

"We'll have to take our chances, Barney. Since the train was not searched at Two Rivers, there seems to be ground for the hope that it may not be searched here."

Rising from the platform on which he had been crouching, Erskine descended the steps on the right, and, grasping the hand-rail, leaned outward. Each moment found the train proceeding more slowly, and, as Fred looked forward along the line, he saw at last the lights of the station which the train was approaching.

"All ready, Barney," he said quietly, and as he spoke he moved back to give place to his companion. The Irishman stepped down.

"Don't jump until I give the word," directed Erskine.

Slower and slower moved the train, but it was not until it was within a couple of hundred yards of the station that Erskine bade his companion take the leap.

This time the Irishman had no difficulty in keeping his feet as they struck the ground. Erskine followed promptly, and in a moment McGrane caught up with him.

Fred quickly led the way from the track to the shadow of a warehouse, and, screened by this, he continued on in the direction taken by the train. The two men had advanced only a few paces, however, when Erskine saw something that brought his heart to his throat.

The Cascade Limited was stopping at the station! Knowing that this train was not scheduled to stop at Tyrcone, there was only one inference to be drawn from the fact that it had stopped there tonight. The hold-up of the train was to be reported to the proper authorities.

As a result of the brief stop at the scene of the hold-up, due to Erskine's prompt action in getting the train into motion, no opportunity had been afforded the men in the express-car to get into communication with the conductor or the engine-crew. Had the train continued on its way, such communication could not have been had until Weatherbee was reached.

This would have given Erskine ample time to carry out the plan he had formulated. And so to the unfortunate young man it seemed clear that a sense of duty had triumphed over his father's affections, after all.

Only for a moment did Frederick Erskine hesitate, however; then, turning to McGrane, he urged him to greater haste.

The Cascade flier had stopped between the waiting West Coast Express and the station platform, and it was the space between the two trains that Erskine now was heading toward. The car from which he and his companion had leaped at Two Rivers was the second from the rear of the train.

Scarcely more than a minute sufficed to enable the two men to get between the trains. As Erskine had expected, the doors of the vestibuled platforms were open, and he and McGrane quickly mounted the steps of the car which they had left at Two Rivers. Erskine, who led the way, had advanced only a little distance into the car, however, when he drew back suddenly.

Between the two long rows of green curtains which screened the sleeping occupants of the berths from the aisle of the car, he saw the white-clad figure of the negro porter. Had he and McGrane not been carrying suit-cases, he would not have hesitated for a moment. When he and his companion had left the train at Two Rivers, it had been impossible, of course, for him to close behind him the door through which they had leaped from the vestibuled platform.

It was scarcely probable that this open door had escaped the notice of some member of the train-crew before Tyrcone was reached; but it was most likely that the person who had found it open had ascribed the fact to some act of carelessness on the part of one of the trainmen. The return of two men with suit-cases, taken in connection with the report of the hold-up of the Cascade flier, which even now must be spreading in and around the station, most naturally would be regarded with suspicion.

Having retreated beyond the porter's view, Erskine was trying to formulate some excuse for his presence with the suit-case in that part of the car when he suddenly realized that he was standing in front of the door of the stateroom in which he had interviewed Miss Warrington. Miss Warrington had left the train at Bernardville, and had not returned to it.

It was most probable, therefore, that the stateroom which had been vacated by her and her mother was still unoccupied. Trying the door, he found that it was unlocked. In another moment he had pushed it open.

"Quick, Barney—here!" he directed.

As soon as his companion was in, Erskine closed the door. The interior of the stateroom was lighted, but, unlike the berths in the other part of the car, these had not been made up for the night.

Erskine, looking at McGrane, scowled slightly. As a result of washing on the locomotive tender, the Irishman was clean enough; but the sharp run he had taken to the car in which he now found himself had caused him to lose his breath, and he was panting slightly.

Glancing in a mirror, Erskine surveyed his own reflection critically. He, too, bore no marks of his recent adventure; but, unlike the Irishman, he showed no effect of his exertions. Thus far he had succeeded rather better than he had expected. It was essential, however, that he get to his section with the suit-cases with the least possible delay, and this must be done in a manner that would enable him to elude observation.

"Brace up, Barney, and get your wind," he said impatiently. "You look as if you had been running a marathon."

McGrane was about to reply when something struck the door, and immediately afterward the two men heard the sound of voices.

"Sit down," commanded Erskine in a low voice, and as he spoke he sank into one of the seats.

The two men were scarcely seated

(To be continued.)

when the door opened and a negro porter, carrying two suit-cases, entered the stateroom. The newcomer halted abruptly, and looked at Erskine and McGrane with an expression of surprise. Fred saw that it was not the porter who belonged to the car.

"This ain't yo' room, is it, sah?" the negro asked.

"No," Erskine answered promptly. "The two ladies who occupied it got out at Bernardville, and as my friend and I were not quite in shape for sleep, we stepped in here. Has it been engaged?"

"Yes, sah," said the porter. "The ladies is back again."

Erskine started. "The ladies who—" he began, but the rest of the sentence died on his lips.

From behind the negro came the low, cold voice of a woman:

"These men are known to me, porter. You may put down the suit-cases and go."

The porter placed the suit-cases on the floor, and smilingly pocketed the coin that was held out to him, then he left the room. Louise Warrington and her mother entered. Louise closed the door.

RAILROADS TO TAKE UP FARMING.

New York Central's Demonstration Farms to Encourage Crop Raising.
—Burlington for Good Wagon Roads.

THE New York Central has determined to run at least three demonstration farms along its road for the purpose of illustrating the best methods in crop production, fruit growing, etc. These farms will be under the control of experts supplied by the State College of Agriculture.

"There is nothing philanthropic in this work," says the president of the railway. "It is simply a matter of business. If the line can show how to increase the production of farms along its route by the means

adopted it will thereby increase its own business and add to its own profits."

In the same way railways are becoming more interested in good roads as a business proposition. The Burlington Railroad has done much for good road building, and has issued a booklet on the subject, besides giving other practical encouragement.

Good roads help the railroads, help everybody. Every State is awakening to this fact, and an era of good road building has well started.—*Illinois Republican*.

One good rail isn't the whole railroad. Experience as an engineer doesn't mean you can run the railroad better than the president.—Admonitions of the Old Man.

The Flight of the Coyote Special.

BY C. E. VAN LOAN.

THE TRUE STORY SERIES. Whenever railroad men fall to discussing shotgun runs and long-distance record-breaking specials, the conversation is sure to veer around to the trip of the Coyote Special over the line of the Santa Fé between Los Angeles and Chicago, 2,265 miles in forty-four hours and fifty-four minutes. That was railroading. Where have they beaten it?

Yes, Scotty was the man who did it. Have your own opinion about him, but there is one thing which you cannot take away from Scotty, and that is the distinction of having bought and paid for the fastest ride over the Rockies and across the plains ever made possible by steam and steel. The Coyote's record still stands and it is likely to stand for some time.

How the Craving for Notoriety and Love of the Unusual, of a California Miner, Brought About the Fastest Long-Distance Run Ever Made in the History of Railroading.

TRUE STORY, NUMBER FORTY-SIX.



WALTER SCOTT has well been called the man of mystery, and a lot of people are still puzzling their brains about him.

Some say that he was hired by the Santa Fe to advertise the road; they say he was a train-robber; they say he was a counterfeiter, and wonderful tales have been told of his cache of thousand-dollar notes in a cave in Death Valley.

As a matter of fact, Scott, whom every

one in the West calls "Scotty," was a young man who was clever enough to sell something which he never proved he had to a lot of Eastern millionaires. His appearance as a man of mystery was an accident.

One night a husky young man in the outfit of a cow-puncher walked up to a Los Angeles cigar clerk and asked for a fifty-cent cigar.

He tendered in payment a one-hundred-dollar note. The clerk said he could not change it.

EDITOR'S NOTE: All the stories published in this True Story Series have been carefully verified by application to officers or employees of the roads or companies concerned who are in a position to be acquainted with the facts. Contributors should give us the names of responsible persons to whom we may apply for such verification, in order that fruitless inquiries may be avoided. This condition does not imply any lack of confidence in the veracity of our contributors, but is imposed merely to give greater weight and authenticity to the stories.

Series began in the October, 1906, Railroad Man's Magazine. Single Copies, 10 cents.

"Well, change half of it!" said the stranger, whereupon he tore the bill in two, left half of it on the show-case, and walked away. But he remembered the number; for, whatever may have been the matter with him, Scott was not crazy.

A reporter happened along, saw the torn bill, and, not being able to find Scott and talk with him, went away and wrote him up as the man of mystery.

Scotty, believing everything he saw in the papers, at once made up his mind that there must be something mysterious about himself; and thereafter he did his best to live up to the part. There is your explanation of Walter Scott in a nutshell. As for his amazing supply of money, he got it in the most prosaic manner in the world—in the form of drafts upon New York banking institutions; and the men who sent him the drafts were convinced that he had a mine.

In the first place, Scotty liked notoriety; that is, he liked it before he got too much of it. In the second place, he had something to sell. It may have been a mine, and it may have been conversation about a mine; at any rate, it was for sale, and Eastern men bought it.

The Coyote Special grew out of two things—Scott's love for notoriety, and his desire to convince people that he had a good thing. As a matter of fact, he had two good things; but it would be unkind to print their names. They furnished the money, and it bought themselves an interest in a gold-mine.

They were buying an interest in themselves, but they did not know that until afterward. It is the general opinion out West that if a man is smart enough to sell a gold brick to an Eastern millionaire, he is entitled to the proceeds.

Now, about that train. After the incident of the torn one-hundred-dollar-bill—and that trick belonged to the justly celebrated Steve Brodie, who also went back after the pieces—Scotty began to appear next to live reading matter in the public prints. When he could not think of anything else to do, he hired a special train from

Barstow to Los Angeles—a matter of one hundred and forty-one miles over the Cajon Pass, and through the garden-spot of southern California.

Scotty broke the record with a whoop and a hurrah, and he liked the sensation so well that inside of ten days he slipped quietly out to Barstow; and I received a telegram from there, saying that the man of mystery was in the office at that point, arranging for a second special train. I wired him that he was crazy; he wired back:

Pay no attention! I'm coming in to arrange for a special train from Los Angeles to Chicago to lower the record made by the Peacock Special.

That was news. Scotty came rolling in from Barstow, stripped to the waist, and working on the engine with Finley, the crack driver of the division. With his usual blast of trumpets, he announced that he was going over to Chicago in forty-five hours.



HE TORE THE
BILL IN TWO.

The Santa Fe was annoyed. The record of the Peacock Special, which had made the fastest time over the road, east bound, was fifty-seven hours and fifty-six minutes; and that was railroading to any man who knows what the Santa Fe grades are like in California, Arizona, New Mexico, and Colorado.

For a few days Scotty talked and the Santa Fe figured. Every little while Scotty would "spur the ole Santa Fay in the shoulder," as he called it; and Eastern newspapers began to wake up and send in queries asking when the train was to start.

On Saturday, July 8, 1905, Scotty walked into the office of John J. Byrne, general passenger-agent of the Santa Fe in Los Angeles, and laid down a roll of thousand-dollar bills.

"I've come to buy speed!" said he. "What'll you take to do forty-five hours?"

That was the beginning of a two-hour confab. Byrne had an idea what the road could do, for the wires had been humming for four days. Every division superintendent along the entire route had made a report; Byrne had the figures under his hand. It was his opinion that to attempt anything like a forty-five-hour schedule would be suicide.

"I think I am safe in saying that we will better fifty hours for you," said he. "That would lower the record by almost eight hours for the east-bound run."

No. Wouldn't do. Wouldn't do at all. Scotty wanted speed. As for that Peacock Special, he knew all about her; and Byrne's eyes opened wide when Scotty began to tell about the number of times she had been put in the hole for hand-cars, as Scotty expressed it.

"I know what this road can do if I get the engines I want," said the man of mystery. "And I want the right of way over every train on the road, with the switches spiked half an hour in front of me."

"See here," said Byrne, "how do you come to know so much about prairie types, balance compounds, and grades, and things?"

"I ought to know a little," said Scott. "I beat my way over your old road about thirty times. I know every foot of it."

In the end, Passenger-Agent Byrne

agreed to arrange a forty-six-hour schedule for the two thousand two hundred and sixty-five miles, giving the special the right of way over everything on wheels, including the palatial limited, the pride of the road.

As soon as the money was paid over, Byrne sent out a flood of telegrams. "All right; get ready," they said. That happened late on Saturday afternoon. At noon the next day the Coyote backed into the yard, ready to start at one o'clock.

There were four passengers—Walter Scott, his wife, Frank Holman, a friend of mine who went along for the fun of the trip, and the writer.

When the minute-hand of the clock crept to the top of the dial, Conductor George Simpson gave Engineer John Finley the finger, old 442 coughed once, slid rapidly over the clattering switches, and the great run for the record was on.

From the first minute of the trip we began fighting that forty-six hour schedule. Finley had been allowed three hours and twenty minutes in which to make Barstow—one hundred and forty-one miles away, over the steep Cajon Pass—the record time for the run. At San Bernardino, sixty miles out, we were to pick up a second engine for the climb up grade, drop her by a flying-switch, and go on down the other side to the Mojave Desert.

All that it needed to get Finley's fighting-blood into action was a four-minute stop on account of a hot tank-box; after that he knocked out miles under forty-five seconds, and came booming into San Bernardino four minutes ahead of the schedule.

Leaving San Bernardino with an extra engine, the Coyote tackled the first of the five mountain ranges; and Conductor Simpson, who had been in charge of the Peacock Special and the Lowe Special, which established the west-bound record, kept his watch in his hand and one eye on the mile-posts.

The run to the summit was made in faster time than it had ever been made before; the second engine jumped ahead, took a flying-switch, and was in the clear as the short train came pounding by, topping the crest of the first range of hills.

The track twisting down to the desert was a dangerous place on which to attempt speed; but Finley knew every inch



"WE GIVE THE OLE GIRL FITS ON THAT GRADE!"

of it, and he let the Coyote out to the danger-limit. His best mile was done in thirty-nine seconds flat; from Summit to Helen, thirty-five miles on a bad grade, his time was thirty-three minutes. With old 442 screeching like a lunatic, the special whirled around the long curve into Barstow twenty-five minutes ahead of the forty-six hour schedule.

Scotty rode the engine from Summit to Barstow, and he came back into the Pullman spattered from head to foot with grease and oil.

"We give the ole girl fits on that grade!" was his comment.

Barstow was Scotty's stamping-ground—the point at which he outfitted for his many trips out into the Death Valley country. The desert rats had their own opinion of Scotty and his mine; but they were all on hand to give him a cheer, and "sic him" onto the record.

Those fellows knew Scotty when he ate his meals at a fifteen-cent lunch-counter; and, while they had an opinion that they had entertained the king of the bunco men, they were not too proud to wish him well.

Then Engineer Gallegher took command for the run over the Mojave Desert. The thermometer in the car registered one hundred and twenty degrees, and the silver-gray dust of the desert, following the train like a cloud, sifted in at every crack. Mrs. Scott retired to the drawing-room, as the motion of the train made her ill.

With our coats and vests laid aside, the rest of us haunted the water-cooler; and I remember that Gallegher took the horseshoe curve outside of Bagdad at such a terrific clip that it knocked us all out of our seats.

At 6.38 that evening we went through Fenner at better than a mile a minute, and on the switch was the east-bound overland which had left Los Angeles at 7.30 that morning. With her start of five and a half hours we had run her down in five hours and thirty-eight minutes, averaging twice her speed. By schedule we were due in Needles at 7.30. Gallegher brought us in at 7.17, and grieved because he had not done better.

Needles made a record for a short stop. Gallegher took 1005 away, and

1010—the new engine, with a wild man named Jackson at the throttle—had the Coyote moving again in exactly sixty seconds by a stop-watch. Trainmaster Mills had rehearsed the whole program.

"This fellow Jackson," said the new conductor, "came down and just natural-

ninety miles an hour? They were shaking hands and holding her old nozzle wide open. Me for them!"

In the dark the Coyote took to the mountains on the Arizona side of the line. At Seligman, four hundred and sixty miles out, we picked up mountain time,



WE WERE TRYING TO EAT A SALAD WHEN JACKSON HIT THE ABRUPT CURVE ON THE CALIFORNIA SIDE.

ly bullied 'em into letting him haul this train. Drives her like there wasn't a curve on the line, hey?"

Jackson did. We were trying to eat a salad when Jackson hit the abrupt curve on the California side of the Colorado River. My salad landed in my lap, and the table was swept clean. Glasses were smashed, plates flew about the floor, and the two waiters, turned from black to gray, hung on with both hands. Scotty liked that.

"Do you know what Finley and his fireman were doing when they were coming down the Cajon this afternoon at

and the watches reported us eleven minutes ahead of the schedule.

Everybody knew that it was on the mountain divisions that the fight must be won or lost. On the Santa Fe "race-track" east of La Junta the balance compounds were waiting, and, as Scotty told Byrne, "You ain't got a man on your road knows how fast them balance compounds can go."

If the mountain divisions could deliver the goods and snake the Coyote into La Junta within the forty-six-hour schedule, the balance compounds across Kansas could be depended on for the rest.

Between sunset and sunrise the Coyote streaked across Arizona, a night of fighting against heavy grades. The small Arizona towns flickered by the windows of the Pullman like a hatful of sparks tossed out into a gale, and Division Superintendent Gibson held his watch in his hand most of the night.

Gibson is a great railroad man; nothing surprises him. Nothing gets a rise out of him. When he hoisted himself aboard the train at Williams he did not congratulate anybody, or make any talk about what his division was going to do.

"What delayed you?" was all he asked; and he put that question to men who had been knocking the spots out of the best running time ever made on a mountain division.

I did not sleep any the first night. Scotty, being built of whalebone and india-rubber, went to his berth and snored. Holman prowled up and down between the diner and the Pullman, not being able to make up his mind which would be the best place on the train in case of a smash.

Geyer, the German chef, who deserves a medal, prepared a midnight lunch for Holman, and while we were eating, the train came to a stop at some unknown place in the hills. Out in the dark, high-pitched and clear, like the bark of a coyote, came a voice:

"Ohee, Scotty!"

The man of mystery was snoring in the Pullman, and did not respond.

"Oh, Scotty! Come outen that and show yourself!"

No answer.

"You ain't all swelled up because you got money, are you? I knowed you when you was poor. Come out and say howdy!"

Silence from the train.

"Hey, there! I'm thirsty, I am! I ain't got no fool pride like some people! I'd take a drink with a hawss-thief, I would! Ha-a-a-ay, Scotty!"

Then the train began to move, and the unseen serenader gave vent to his feelings with some of the most remarkable profanity a man ever shuddered to hear.

"I guess that must have been Bill," said Scott, the next morning. "Friend of mine."

Superintendent Gibson had given his word to knock half an hour off the best time ever made over his division, the Lowe Special holding the record. His men made us a present of an additional four minutes, for we were in Albuquerque at 9.30 Monday morning, 888 miles from Los Angeles. We made our longest stop at a station in Albuquerque, where they restocked the diner and picked up a new outfit, which included Trainmaster Jim Kurn, a fine specimen of a mountain railroad man.

"It's a lot easier to be on a plain's division," said Kurn; "but I like this mountain country, even if we do have to put in twenty-two hours a day fighting these grades. We'll show you some regular railroading when we get down on the Glorieta."

Railroad men the country over know about the Glorieta Pass. Ed Sears is the name of the engineer who took us from Lamy to Las Vegas, up one side of the Glorieta and down the other, and a three per cent grade on both sides. There was some repairing being done on the far side of the Glorieta, and Sears had two slow orders to four miles an hour. He rolled them up into a little ball and dropped them out of the cab-window.

"If they pick us up in the ditch," said Sears, "never let it be said that they found any slow orders on us. We're off!"

Sears jerked the Coyote up Apache Cañon at forty-five miles an hour. We had a passenger on this part of the run—a young man whose uncle was one of the high officials of the road. When the Coyote crossed the top of the ridge and started down the other side, Sears showed us the railroading that Jim Kurn had been talking about. Kurn was out to make up the time which Arizona had lost and send us out of the mountains with a chance to beat forty-six hours into Chicago.

Down the eastern slope of the Glorieta Pass the road is one long succession of compound curves laid out on the side of a mountain strewn with immense boulders. The first time that Ed Sears slammed into a compound curve, the wheels on one side of the Pullman lifted about two inches from the track and came down again with a bang that made



SCOTTY TRIED TO WALK DOWN THE AISLE.

the dust spurt out of the cracks in the woodwork of the car.

That was the program all the way down the side of the mountain. I looked at Jim Kurn. He was doubled up in a ball, with his watch in his hand. I ventured to ask him what would happen if the train should leave the track on one of those dangerous curves.

"The only question," remarked Kurn, "would be the size of the splinters. Don't talk about it."

The Pullman leaped and swayed from side to side as it righted itself around the curves; Scotty tried to walk down the aisle, and his shoulder went through one of the windows. Our passenger did not seem to be enjoying himself, and—I speak for myself—there was one man aboard who was trainsick.

There was a piece of track on the side of that mountain where it seemed that we were running over choppy water. That was one of the places where the track was being repaired; one of the four-mile-an-hour "slow orders." Ed Sears ran over at a mile a minute.

"This is what you call fancy railroad-ing," remarked Kurn, when the engine whistled for Las Vegas. "They laid me out a tough schedule, but we've gained eight minutes on her, and you've had the fastest ride down the Glorieta that any

people ever had that came out alive."

As we pulled into Las Vegas, the passenger came over to say good-by.

"I want to get over into Kansas in a hurry," said he, "and I'm no quitter, but I've had all this sort of thing that I want. I'd rather ride on a slow freight than on this train. Send me the newspaper clippings, will you?"

The porter on the Pullman also announced himself after that Glorieta joy-ride.

"Ridiculous; plum ridiculous!" he said.

From Las Vegas to Raton, over the mountains, and then a tremendous sprint from La Junta and

the beginning of the "race-track" and the balance compounds. Hud Gardner brought us into La Junta exactly even with the revised schedule. To do it he gave her nine notches and threw away the lever.

Engineer Dave Lesher took the Coyote out of La Junta, and his actual running time for the first 120 miles was 111 minutes. It is 202 miles from La Junta to Dodge City, and it was done in 198 minutes, including three stops caused by a hot box on the diner.

Scotty worried about that hot box, and, because of it, elected to ride in the diner, with a bucket of cracked ice always within reach. Once, when the Coyote was forced to stop, Scotty was packing chunks of ice into that hot box before the wheels were through turning.

Somewhere between Newton and Kansas City, after midnight, I was in the diner, trying to find something to eat. One of the crew of the special, a train-master, I think, dropped in after a sandwich. Like most of the men east of La Junta, he had never heard of Walter Scott, and had not the faintest idea as to why the run was being made. He had heard, in a hazy way, that the man who bought the train was a mining millionaire.

At the same time, Scott came in from

the-engine, stripped to his shirt and trousers, and sat down.

"Well," said the trainmaster, "what kind of dash-blank fool is it that's hiring this train? What's his idea?"

Scotty winked. I said that, so far as I could judge, the idea was to get to Chicago as soon as possible.

"Man must be crazy," said the trainmaster. "Raving crazy. Nobody but a fool would want to run this fast. Ain't that so?" And he appealed to Scotty himself.

"Don't put it up to me, mister," said Scotty. "You see, I happen to be that darn fool you've been talking about."

The trainmaster was still qualifying his remark the last we saw of him.

At 3.37 in the morning we pulled into Kansas City, stopped just long enough to make a flying change of engines, and we were off again. With daylight we figured that we had a chance to reach

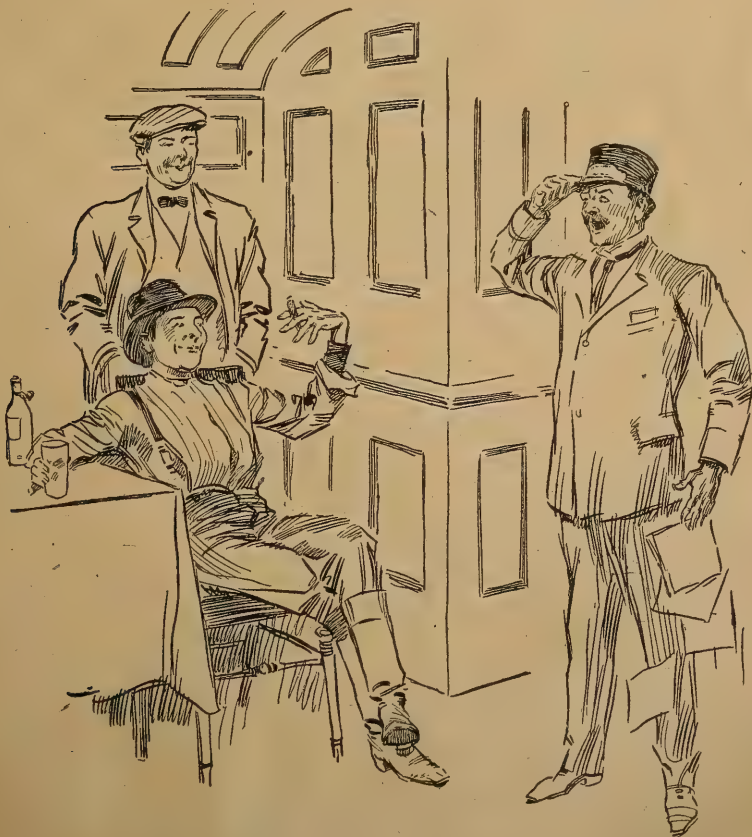
Chicago in forty-five hours. The original schedule had been smashed to bits after leaving La Junta.

At Fort Madison, with 239 miles still to go, we were turned over to a big, quiet German named Losee, the engineer whom the officials of the road had selected to set the high-speed mark for the trip. He had one mile in thirty-nine seconds to beat, and that mile was made by the first engineer in charge of the train, John Finley.

Scott asked Losee what he thought he could make the distance in, and Losee shook his head.

"Wait!" he said. "I'll tell you when we get to Chicago."

Between the two little stations of Cameron and Surrey, in Illinois, there is a slight down-grade. The distance is two and eight-tenths miles. It was here that Losee was to let her out and see what a balance compound could do.



"I HAPPEN TO BE THAT DARN FOOL YOU'VE BEEN TALKING ABOUT."

T. RENNEY

There were three split-second watches on the train, brought along for the purpose of timing that dash between Cameron and Surrey. Losee made the two and eight-tenths miles in 1.35 flat, or a trifle better than 108 miles an hour. Trouble with his engine laid him out for ten minutes, but he did the 239 miles in 244 minutes, including three stops.

The Coyote, dusty and smelling to heaven of scorched waste, limped into the Polk Street Station in Chicago at 11.54 on Tuesday morning, thirteen hours and twelve minutes ahead of the best time ever made by an east-bound special, and seven hours and fifty-five minutes ahead

of the time of the Lowe Special, west bound. She had bettered fifty miles an hour between the points, and a thousand miles of the distance had been a tremendous battle with mountain grades.

The thing which pleased Scotty the most was that he had beaten forty-five hours, a thing which General Passenger-Agent Byrne had said was impossible. Here is the telegram he sent Byrne reminding him of that circumstance:

"Forty-four; fifty-four! I guess I'm crazy!"

The man who beats it will have to be crazy.

A TELL-TALE THAT IS POPULAR.

A TELL-TALE is not always a desirable article of furniture to have about, but it is a thing that the New York Central finds absolutely necessary in order to cope with certain conditions. However, as the tell-tale is stationary, and is supported on three legs, not being, therefore, of the uncomfortable, human variety, the employees of the road do not at all object to its presence; in fact, it is a great help to them.

This tell-tale is a spotter in more ways than one, and wherever it places its spot

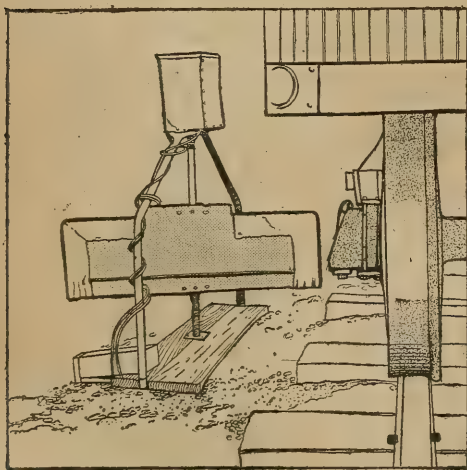
This spotter is placed in the freight-yards of the New York Central in New York City, and also at the other end of the electric division. The freight-yards are run by the faithful old stand-by steam locomotives, and, therefore, there is no third rail. When the cars leave the yards they have, of course, to run over tracks equipped with third rail.

The third rail is fourteen inches higher than the track and the purpose of the tell-tale is to detect any object on the freight-cars, extended in such a manner as to foul the third rail—for instance, a broken journal box or some other faulty part.

As will be seen by a glance at the accompanying diagram, the device consists of a skeleton frame carrying a pivoted marker. The white ends of the device constitute the marker.

This marker is loaded thickly with white lead, and any obstruction which would run amuck the third rail strikes the painted board and swings it around until it rings a bell in a switchman's shanty close by, at the same time receiving the mark of the paint. The switchman immediately locates the car more easily, notifies the yardmaster, and the car is cut out for repair or adjustment, whichever it may require.

The box-like arrangements at the top and the foot of the frame, carry the batteries which are connected to the switchman's bell by the wires that are also visible in the drawing. The New York, New Haven and Hartford has these detectors placed on its line just before it joins the third-rail system of the Central, the New Haven's electrical system being overhead trolley.



A NEW YORK CENTRAL TELL-TALE.

and leaves its mark, the tale it tells is taken notice of with a degree of respect that could never be given to a human spotter, no matter how truthful he might, by accident, happen to be.

OLD-TIMER TALES—No. 6.

The Evil Genius of the 888.

BY ARNO DOSCH.

IN the April issue of THE RAILROAD MAN'S MAGAZINE, as No. 3 of these Old-Timer Tales, we published the story of the wonderful record of the 999, of the New York Central Lines, in her day—some seventeen years ago—the most remarkable of all locomotives. She had a sister, the 888, built to resemble her so closely that every tiny bolt was an exact duplication.

It was hoped that the 888 would not only equal, but actually eclipse the wonderful record that her sister held for speed and regularity of performance. She was even constructed with more care, in order to gain such an end. But, alas! only evil came her way. Hers was the direct antithesis of the story of the illustrious 999—the story of a giant mechanism that went down to a terrible doom.

Many of our readers asked us to print this story of the 888, after the story of the 999 had appeared. We immediately assigned Mr. Dosch to the task of preparing it. It is a pleasure, indeed, to serve our readers in this way.

A Locomotive Built to Make a Startling Record, Only to Become the Victim of an Unbroken Series of Mishaps and Disasters that Finally Sent Her to Her Doom.

ENGINE 999, on the New York Central, made the fastest mile ever run, as railroad men all know; but who ever heard of her sister, the 888?

Built along identical lines, every detail the same, one flashed into the lime-light to remain there for years, while the other—her spirit broken, her speed gone—has been condemned to a mediocre existence by a fate that is almost human in its pathos.

The story is only known among a few railroad men on the Albany Division of the New York Central. In the big offices of the company, in New York, there is a record of it buried among files that are never opened, but all that is to be

learned is that a shifting-engine in the Albany yards bears the number 888. The tragedy that made 888 into a shifting-engine is forgotten.

It is the fate of sisters, whether they are ships or locomotives, that one makes a big name and becomes a household word, while the other remains in obscurity; but few have been thrust into ignominy by so cruel a misfortune as 888.

An Unkind Fate.

She had as engineer old Nathan Hager, who believed in her, and he used to say that she would equal or even break her sister's record if she only had a chance. Both were built to haul the Empire State Express, and both developed high speed.

Series began in the February Railroad Man's Magazine. Single Copies, 10 cents.

That 999 was sent to the Columbian Exposition and shown to be the fastest engine in the world, instead of 888, Nathan Hager always laid to luck.

In fact, he used to boast that he had come pretty near to breaking the record of 999, with the whole of the Empire State Express behind him; and tried to do it nearly every night, going east over the level stretch of track between Syracuse and Utica.

It was undoubtedly the greatest joy in his life to see her limber up and begin to burn the rails until the passengers rocked in their berths.

But the evil genius that sometimes attends mechanical sisters was with her, and she could not leave it behind even at sixty—seventy—seventy-five miles an hour. It was, indeed, while going at this terrific pace that fate got between the rails and sent 888 smashing into oblivion.

Her body lives on. The neat lines are gone, the graceful poise is lacking, what is left of her is pensioned off as a shifter; but her soul left her that night on November 18, 1895, when four young idiots who wanted to be desperadoes removed the fish-plates and opened the rails before her, two miles west of Rome, New York.

Her Breastplate Preserved.

After the wreck a doctor from Rome who had attended the injured found her breastplate torn from her body, lying in the mud. Picking it up, he threw it into the back of the buggy, and carried it back to Rome, where he made a present of it to Thomas H. Barry, the chief of police.

Barry hung it on the wall, and there it has remained ever since, marked on the outer circle, "Schenectady Locomotive Works, 1893," and in the center, in large figures, "888."

She bears another breastplate now, but the spirit of the old engine that was as good as her sister, 999, remains in the police station at Rome with the old breastplate.

When I went to Rome to get the story of 888, the first thing I saw when I stepped into the police station in search of information was the breastplate of 888 looking down on me from the wall. It was like the face of some live thing—it

represented so much strength and power that was gone—and, now that I know the story, it seems to me as if the spirit had actually been in that mask, and had come to life to tell its own tragic history.

The Spirit of 888.

Sitting there beside Acting Chief Keating, who had had an active part in the most momentous occasion in the life of 888, I looked up at the breastplate, and said:

"You were an engine, and all but human once. I wish you could speak."

And, as well as a spirit can, it replied.

"It was just before dawn," it began, "and it seemed as if Nathan Hager and I were the only live things in all that stretch of waste country lying to the west of Rome.

"Didn't know Nathan Hager? He was a grand old man, and my friend. He used to pat me and tell me that I was as good a girl as my sister, and some day, he would show them what I could do. For forty years, ever since 1853, he had been in the service, and I was given him as a reward for a long record without serious accident.

"He had a father who was ninety years old, and a mother eighty-three, who lived at Little Falls, to the east of Utica. Every night as we rushed through I used to give a little, low whistle for him, so that they would know it was we.

"Being old people who did not sleep soundly, they would hear it, and drop off again, conscious that we were all right.

"Years and years before my time he had been signaling them; and it came to be as much a pleasure to me as to him. Neither of us ever forgot."

"On that account, Hager always liked to pass Little Falls on time. If we were a little late, we tried to pick it up before we reached there. That night we were fifteen minutes to the bad, and as soon as we cleared Syracuse Hager began to open up.

"We liked it, both of us, and that night I was feeling good.

"As we flew down the clean line of the rails, I lost all sense of time and space. If there was one piece of track on which we felt safe just then, it was in the waste west of Rome.

"Two weeks before, in the morning, a fish-plate had been found torn off, and some tools lying near made it look as if some one had been trying to throw the rails.

"So a guard had been placed to patrol the track. Only the night before we had passed several track-walkers, and we did not know that they had just been taken off.

The Wreck.

"But, guard, or no guard, we had an eye out for the spot where the fish-plate had been torn loose, although we did not let up on the speed. All at once we could see that the gleam along the tops of the rails was broken two hundred yards ahead.

"Two hundred yards! At the speed we were going, what could we do to save ourselves in that little space?

"Hager threw on the reverse, and I never worked so hard in my life as I did in the next few seconds trying to let down on the speed.

"It was all off with us. We had no chance, and we knew it; but we hoped to save the twelve mail-clerks and the passengers asleep in our cars. It was a terrible moment. The steam rushed to my throat and throttled me, and my wheels pounded up and down on the rails until I rocked like a mad engine.

"But I could not get down my speed. Maybe it was fifty miles an hour, maybe it wasn't. All I know is that I struck the ties ten feet ahead of where I left the rails, and tore the track to pieces for a hundred yards before I jumped the embankment and landed on my back in the swamp.

"Just as I turned, my light flashed across the waste and showed four boys legging it for all they were worth. The hat of one blew off, but he did not stop to pick it up. Hager saw them too, but the next instant he was deep in the mud with all my weight on top."

A Crippled Giant.

The recording ticker that reported the Rome patrolmen on their beats clicked for a moment at my elbow and then the spirit went on.

"I didn't really know what speed was

until then. When I went into the ditch, I picked my tender off the track as if it were a rock in a sling and threw it over my head so hard that it buried itself in the mud.

"When it left the rails, it jerked the first of the mail-cars over us and threw it seventy-five feet beyond.

"A deadhead, Robert Bond, of Syracuse, was on the forward end of that car and, with the car literally flying, he had a ride in the last few seconds of his life that beat anything that was ever made on a railroad.

"The mail-clerks were all in the second car and they were hurled to the rear end like so many potatoes, and well it was for them. This car struck the first car and crumpled half its length, but the mail-clerks lay unconscious in the unharmed end.

"The sleepers were so far behind that they had been jerked almost to a standstill before they left the track. All but one landed in the swamp.

"Quivering and stunned, I lay in the ditch. I was clear of the tracks and the wrecking crew did not bother with me. Then the breastplate was brought here and I clung to it, for I knew the engine was dead."

The Desperadoes.

As the spirit paused, I turned to Keating and he pointed over his head to a photograph of four boys, subscribed with the names: Herbert Plato, Fred Bristol, Theodore Hibbard and J. Watson Hildreth.

The first three, he told me, were natives of Rome and the fourth, the leading spirit, the wayward son of a New York lawyer.

The history of the crime is curious, particularly as several other gangs of boys scattered through half a dozen States, tried to duplicate it within the next few months. It made a big stir at the time.

Hildreth was sixteen and brimful of outlawry. He had read about robber chiefs and he wanted to be one. After being expelled from several schools he had chosen Rome as a seat for his operations and had obtained an allowance from his father on the pretense of at-

tending an agricultural college that had no existence in fact. With his allowance he was able to organize a gang and supply it with ready money which he dealt out in a grandiose manner. He was the boy leader of Rome and the other three numbered his lieutenants.

They drank and smoked and played cards until late at night and in general regarded themselves as hard characters. But card-playing palled and Hildreth had to offer his gang something more thrilling. So he suggested holding up the express.

At once it appealed to their imaginations as a desperately evil undertaking, so they pocketed their revolvers, which Hildreth had bought for them, and went out early one morning to try it.

It was below their dignity to walk, so they hired a carriage and driver from the brother of the chief of police and drove a mile out of town. There they paid the driver grandly and started off through the waste afoot.

This was the night they could not get the fish-plates loose, so they had to wait until the guards had been removed. But at the first opportunity they were at it again. This time they thought it better to go afoot and worked for an hour between three and four in the morning before they had set the death-trap.

Traced by a Hat.

When they heard the express they drew their revolvers once more and Plato fastened about his arm a hammer he had brought along to knock out the brains of the survivors with. But when they saw

the wreck and understood what it meant for a train to be derailed at fifty miles an hour they turned and fled. Hildreth lost his hat, and, although it had his name printed on the inside, he did not stop for it then. Vaguely, however, he realized that it would implicate him if found.

But he showed what a boy he was. In Rome there lives a newspaper correspondent, Dick Howland, who is known the country round, and the moment anything happens some one always runs to tell him about it first. On this morning he was still asleep when he heard a breathless voice calling under his window. Looking out in the half light he could see the flushed face of Hildreth.

"Say, Dick," he called out, "there's a big wreck. I thought I'd let you know."

With face still flushed, the boy then went to the house of a girl he was in love with, to get a cap. She was up and cooking hot-cakes for breakfast.

He was hungry and those hot cakes smelled good to him. So he stopped and ate his fill, although by this time he realized that the hat was a dangerous piece of evidence. When he finally returned to the wreck his hat had been found.

In the end all confessed. Bristol died before trial and the other three were sentenced to life imprisonment. Plato died there two years later and the other two were pardoned in 1905. Meanwhile, the girl who cooked the fatal pan-cakes, had had her faith so completely shattered by Hildreth's actions that she went into a decline and did not live through his term in prison.

GRADE CROSSINGS ARE DISAPPEARING.

WHILE invariably avoiding grade crossings on new and revised construction work, the Pennsylvania Railroad has, in the last ten years, been eliminating all crossings at grade as rapidly as practicable.

A compilation for the period since January 1, 1900, shows that 673 grade crossings have been removed on the lines of the system east of Pittsburgh and Erie. These figures are of record of September 1, 1909, and do not include the ten crossings to be eliminated by the change of line to be made through Bristol, Pennsylvania, on the New

York division. On the lines of heaviest traffic between New York and Washington and Philadelphia and Pittsburgh, the company has abolished 256 public grade crossings in the past ten years. The 774 public crossings remaining are scattered over 574 miles of road, and are, with a few exceptions, at unfrequented highways, where traffic is inconsiderable. There have also been removed, in addition to the 256 public crossings, 129 private crossings at grade.—*Railway and Locomotive Engineering.*

THE BIOGRAPH BANDITS.

BY HENRY H. TINKHAM.

A Case of the Turning of the Worm, with Some Results That Surprised the Worm.

SLATTERY slowly backed the wheezing old "99" down from the roundhouse and prepared to couple to his train.

As his name indicates, Slattery was Irish. He was still on the near side of forty, but seemed to lack that strain of combativeness and initiative that is inbred in almost every individual of predominant Celtic blood. He had always preferred unobtrusively to slip along the pathway of least resistance.

So it was, while Slattery was held on "backwoods" and "brush" runs, many of his juniors in the service and his in-

feriors at the throttle graduated from his class and gained their reward in the proud possession of the fast, spider-driven, main-line engines. For, on the Stone Island, seniority did not rule.

For weeks something within him had been worrying Slattery. He ceased to view things with the same complacent attitude of philosophical satisfaction. Perhaps it was his Celtic blood at last asserting itself. He seemed awakening to a belated realization that, while others forged ahead, he had been hopelessly at a standstill.

Pride, which had heretofore been an unknown quantity in Slattery's make-up,



"GOOD! DON'T SAY THAT WORD TO ME. I AIN'T GOOD FOR NUTHIN'."

was coming into its own. He boiled inwardly as his quickened imagination pictured the sorry figure he must have cut all these years in the eyes of more favored fellow workmen. For Slattery was making that very human mistake of ascribing his own failures to the partiality of unappreciative employers. He became ill-tempered, critical, and dissatisfied.

As he hung listlessly out of the cab-window, waiting for the signal to send him away upon that despised run over the Gull Mountain division, he was in a particularly sour mood. In his mind he ran over the cases of a dozen or more younger men who had been pushed up and over him to the choicest of main-line throttles. There was Everett, for instance.

Slattery had scarcely turned his mind to the young engineer when No. 5, the main-line flier, roared into the train-shed from the West, bringing a vast cloud of dust, and stopping with a businesslike flourish and a shrieking of air-brakes. At the throttle of the big 1066, one of the finest machines on the whole road, which pulled the fast train, was Everett, the object of Slattery's present bitterness.

Slattery looked over the big Pacific locomotive with an envious eye. He gazed with secret admiration upon her massive, symmetrical lines, the almost human Walschaert valve-gear, her duplex pump, the great low-pressure cylinder, and even the little automatic bell-ringer perched high upon her enormous boiler. He glanced at her safety-valve, drumming merrily at the apex of the steam-dome under a pressure that would have torn the little 99 to shreds.

Everett, the proud possessor of this masterpiece of locomotive art, had begun his railroading under Slattery's watchful eye. Slattery had taught him all he knew about locomotives.

Slattery's unpleasant frame of mind was amply reflected in his uninviting scowl; and as Everett swung down from the 1066's lofty gangway with a cheery greeting, he returned an unfriendly grunt. Everett looked at him curiously, and hesitated as if to pursue the conversation, but, noting Slattery's forbidding frown, turned away with a shrug and devoted himself to oiling.

Five minutes later No. 5 pulled out.

The 1066 picked up her thirteen Pullmans as if they were a train of paper coaches, and they whisked past Slattery's little 99 as one snaps the long lash of a whip. Slattery's scowl became even more threatening.

Mooney, his conductor, came up with the orders. He passed Slattery his "flimsy," and waited for him to look it over. Slattery read:

Train No. 43, Eng. 99, Condr. Mooney, Engr. Slattery, will stop on signal two miles east Gull's Head. Condr. Mooney to transmit explanatory instructions to crew.

Mooney grinned appreciatingly as the engineer's frown dissolved and a puzzled expression shone in his eyes. Slattery's astonishment was real. He slowly spelled the order through a second time.

"What is it all about?" he finally inquired.

"We're goin' ter be held up," explained Mooney, his grin broadening.

"I know that," said Slattery shortly.

"But why?"

"Real hold-up," said Mooney.

"What?"

"Yep," continued the conductor, enjoying his engineer's wide-eyed amazement. "Real goods. Goin' ter flag us, shoot us up, blow up the express-car, and go through the passengers. And we gotter stand fer it. That's th' orders."

Slattery's none too patient temper was getting away from him.

"Aw, cut that kiddin'," he said.

"Straight goods," returned Mooney. "Some movin'-picture concern's goin' ter take a train-robbery picture down in the rock cut on the Gull's Head Hill. They fixed it up with th' old man. Ask'd him first if they couldn't pull it off on No. 5.

"Nope," McLane told 'em, 'I can't bother No. 5.' Then they asked about us.

"Sure," he says '43's got all day ter get inter Lake City. Yer c'n hold her up if yer wanten,' and with that he wrote an order to Shanahan."

"Got all day to get there in; eh?" repeated Slattery savagely.

"We don't 'mount to much round here, Mooney. Wouldn't bother No. 5. Oh, no! She's too good! There's that

kid, Everett! Why, when I took him off the farm he couldn't tell a draw-head from a steam-gage. Taught him all he knows. An' now he's so high and mighty the old-man won't even bother him. But Slaterry!" Slaterry spoke his own name with a world of sarcastic emphasis.

"Slaterry!" he repeated. "He don't 'mount to nuthin'. Got all day to get inter Lake City. Hold him up? Throw him in the ditch? Sure! He's just plain no account, that's all."

Slaterry's tone was full of self-pity, but Mooney, to whom the whole affair was a welcome diversion in the day's work, chuckled at his discomfort with unfeigned glee.

"What's matter, Slat? Ain't yer feelin' good?" he questioned.

Slaterry bristled.

"Good?" he echoed.

"Good! Don't say that word to me. I ain't good for nuthin'."

Mooney went back to his train, shaking his head. A minute later he gave Slaterry the signal, and No. 43 pulled out.

Jumped out, perhaps, was more the word, for Slaterry turned on the sand and gave the old 99 a wide throttle. She slipped wildly a second; then her drivers caught, and she nearly pulled the knuckles off the automatic couplers. No. 43 left Whitely so precipitously she almost ran away from the astonished Mooney, who stood dreaming on the platform.

Out in front, Slaterry was breaking in a green fireman, whom he cursed, criticized, and bulldozed until the boy was so nervous he could hardly spread the coal.

The fire got thin, a cold draft struck the 99's scaly old crown-sheet, and two or three of her tubes began leaking.

As she refused to steam freely, the engineer continued for some time to vent

his sarcasm upon the inexperienced youth, but finally grew silent, and grimly devoted himself to running.

In spite of her leaking boiler-tubes, he drove the old engine with a nicety of cut-off that conserved her run-down steam supply; and as the fireman regained his nerve, she was soon wheeling along close to fifty miles an hour.

Mooney, behind in the train, glanced apprehensively out upon the hurrying scenery, as the trucks clicked over rail-



A FIGURE, WAVING A RED CLOTH, DETACHED ITSELF FROM THE GROUP.

joints at ever-decreasing intervals until they blended in one wild, incessant rattle of gear. The old coaches were jumping and swaying like ships at sea, and passengers were beginning to look alarmed.

In the cab, Slaterry, still running at a furious pace, kept growling to himself as he repeated, over and over, McLane's slighting reference.

"Hold her up, if you want to. She's got all day to get into Lake City. But No. 5—" Slaterry's temper blazed. He

cursed anew, and gave the creaking, bucking old 99 another notch of throttle.

No. 43 was the single daily train over the Lake City or Gull Mountain Division. She carried mail and express in a combination baggage-coach. From division headquarters at Whitely, she followed the main line twelve miles and then went off to the north for a three-hour climb over the sharp grades of Gull Mountain to the mining-camp known as Lake City.

Gull's Head, mentioned in Slattery's peculiar orders, was the junction-point where No. 43 was destined to leave the main-line steel and roll out upon the "Gull Mountain Division."

The place specified in the order directing No. 43 to submit to the indignity of a pseudo train robbery was a wild stretch of track where the right-of-way literally was carved out of solid granite, an ideal stage setting for a hold-up picture.

Slattery had the old 99 going at a pace that would have been a credit even to the "favored" Everett and his pet Prairie type passenger racer, as she dipped over the brow of the hill leading to the rocky cut where the hold-up was scheduled to take place. Ten miles of hill and dale had been covered in exactly ten minutes, and No. 43 was three minutes ahead of time when Slattery noted with a grin the little group of figures hurrying about far down the track. They evidently were not expecting so early an arrival.

While he reviewed and soliloquized over the many indignities he fancied had been heaped upon him, a sudden resolution shaped itself in his overwrought brain. At first it was but a wild, vague idea, but in his poignant self-pity it soon grew into a fixed resolve. He determined to demonstrate his independence to the company and to administer a suitable rebuke for all the accumulated wrongs it had heaped upon a faithful and devoted servant.

Slattery's Irish was beginning to be very much in evidence, and his awakening threatened to be as thorough as it had been delayed. His decision once made, the engineer devoted himself to the execution of his wild plan in a manner that would be well in keeping with his ideas of a just revenge.

With steam pouring from her ill-packed stuffing boxes, her age-loosened cross-heads, and the driving and connecting rod bearings uttering a wild chorus of metallic remonstrance at the unaccustomed shaking, the old 99 fled down the grade toward the waiting train-robbers, gaining speed with every turn of her rusty driving-wheels.

As they drew near, Slattery saw that an obstruction had been placed across the rails, and soon a figure, waving a red cloth, detached itself from the expectant little group of biograph "bandits" and started along the track toward the approaching train. Slattery waited until he was within three hundred yards of the flagman before he acknowledged the signal with a blast of the whistle. He grinned exultantly as the figures on the track shuffled about in a pantomime of anxiety. It was quite evident that they feared he was not going to stop.

At the last moment Slattery tossed the lever of the engineer's valve into the emergency notch, and every truck buckled up as the brakes locked tight. To make the stop more effective, he threw the old 99 into the reverse and turned a hatful of steam into her cylinders.

She bucked like a yearling, coughed and snorted a few times, locked her drivers, and settled back into the breeching like a balky mule.

Slattery then saw that the obstruction consisted of several ties piled loosely upon the rails, and as the train lost headway he smiled to himself. Among the little party out ahead, arranged in approved bandit formation, there was a dull glitter of blue steel firearms.

When he was yet one hundred feet away he threw off the air with one hand and pulled the throttle wide with the other. He sent the sand streaming under the tires of the driving-wheels to give certain traction and, cursing happily, reached for the whistle-cord, and sent up a few wild shrieks of defiance.

On the down grade the old engine caught the rails and leaped ahead like a frightened doe. There was precipitant scattering of armed and masked men as the low-hung pilot of the old 99 picked up the ties and tossed them vindictively hither and thither. Startled cries arose from the would-be train-robbers.

Slattery leaned far out of his window and cursed them deeply and joyfully. Their reply was a fusillade of shots, and involuntarily the engineer ducked low, though he knew the shots were the discharge of blank cartridges. Somehow he fancied, however, that he heard the whistle of lead. Mooney's shrill summons to stop was borne to the engineer on the signal-cord from the coaches that the 99 was gaining momentum with every turn of her cranks. Slattery's grin was wide and—it was real.

"Sure they can hold up No. 43," he gurgled to himself in high glee. "Sure they can—not!"

THERE WAS A
PRECIPITANT
SCATTERING OF
ARMED MEN AS THE
LOW-HUNG PILOT
OF THE OLD 99
PICKED UP THE
TIES.



smoking. During the last mile Mooney vainly had been striving to scale the tank in order to get over into the cab; but, Slattery was going so fast and the cars were bounding so high at the rail-joints, he dared not trust himself on the plunging, insecure footing. He had made a dozen futile attempts to stop the speed-mad Slattery with the conductor's brake-valve, but it failed to operate.

The anxious fireman stole a wondering glance at his engineer. Finally he leaned over and yelled in Slattery's ear: "They'll 'can' you sure."

Slattery nodded, not the least disturbed at the prospect.

"Maybe they think they can play their monkey-shines on me," he yelled across to the nervous fireman.

"Maybe they'll hold up old Slattery. Everett and his No. 5's too good. Sure! But Slattery—maybe they'll hold him up. Yes, maybe they will; but not today." Slattery laughed loudly.

The train came into Gull's Head, all

When they pulled up at the junction, Mooney raced ahead and met Slattery as the engineer leisurely swung down out of the cab. The conductor was apoplectic. He choked and sputtered before he finally managed to control his outraged throat.

"What's matt'r you, you blank, blank, blankety blanked fool? Why in Hades didn't ye stop? Couldn't ye hear me 'pullin' yer down?' Want me ter break the darned cord?" Mooney's questions came so fast Slattery couldn't have gotten in a reply. Slattery didn't want to. He enjoyed Mooney's paroxysm.

"Can they hold up No. 43?" he

asked airily, looking at the sky, the trees, the little station, and finally at the angry conductor.

Then he answered himself:

"Sure they can—*not*." He grinned broader than ever as Mooney exploded into a torrent of profanity.

"No. 5's too good," continued Slattery. "Couldn't afford to bother No. 5. Oh, no! Everett might lose some nickel off the 1066. But No. 43—huh! 'She's got all day.'"

"Say, Moon', old boy, did they hold us up?" Slattery simply was hysterical with glee.

"Did they hold us up? Yes, they did—*not*!" the gleeful engineer repeated again and again.

The Gull's Head station-agent, coming down the platform, interrupted Slattery's boisterous merriment.

"Come into the office," he said, addressing the engineer. "Old man wants to talk with you."

Slattery's loud laughter died in his throat. He had had his master-stroke of revengeful independence, and now he must pay the penalty. He thought of Maggie and the little Slatterys, whom he loved, at home.

But there was a snug little balance recorded on the pages of the family bank-book, and Slattery thought he knew where he could get a job. Anyway, he had demonstrated his independence. He squared his shoulders and smiled again, and jauntily followed the operator into the boxlike telegraph office. Mooney trailed silently along behind.

"Fine bit of work," commented the station-agent as he reached for the key and began calling division headquarters.

"What?" asked Slattery, eying him suspiciously.

"How did you happen to get next to it? Do tell?"

"How'd I happen to get next to what?" demanded Slattery belligerently. His temper was slipping again.

"Well," commented the telegrapher, looking the engineer over admiringly, "you take it cool enough." Slattery started to say something, but the operator had devoted himself to the wire. The sounder was speaking.

"McLane sends congratulations," he translated as the dots and dashes flowed in over the wire from headquarters. Slattery looked sheepishly about, and he coughed nervously.

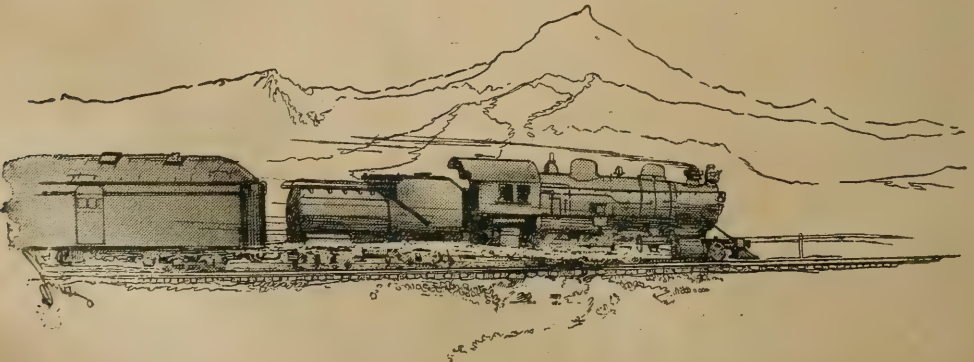
"Old man's kiddin' ye before he ties on the 'can,'" was Mooney's grinning comment. The sounder again took up its message.

"McLane says," repeated the operator, "'Express-car of No. 43 carried fifty thousand dollars in gold for paymaster of Yellow Boy Mine at Lake City.'" There was a break in the staccato voice of the instrument. Slattery's eyes were popping from his head. Then the operator resumed his measured translation of the metallic Morse.

"McLane says: 'Received tip five minutes after you pulled out that moving picture frame-up was a "stall" to cover attack on express-car. Kid Gleason, escaped Carson City convict, led bandits. Posse in pursuit. Your action saved company fifty thousand dollars. Will not forget. Report to me in morning.'"

"Now, ain't ye the fine, sly old divil?" reproached Mooney, lapsing into broad brogue in the shock of surprise and astonishment.

Slattery was no fool. He knew how and when to keep his mouth closed.





Handling 1200 Trains a Day.

By T. S. DAYTON.

RAILROAD man and weather prophet—that's the artistic combination that is the make-up of a signal-man who handles the Coney Island crowds. If a storm comes up suddenly, the great crowd of pleasure-seekers make a rush for home, and they are shipped there safely at the rate of 1,000 a minute. That's going some.

Think of moving the entire population of St. Louis in all directions, some as far as twenty miles, in a few hours. The men who accomplish this feat sometimes work so hard during their trick on the hot summer days that water has to be thrown on them.

The Gigantic Task at Culver Terminal, Coney Island, When Over 500,000 People Make Up Their Minds To Take a Day's Outing.

HOPING and praying for relief, New York had tossed in its sleep and cursed at its work through three days of almost intolerable heat. Saturday's weather forecast promised no relief.

By three o'clock that afternoon there were more people at Coney Island than there are in Pittsburgh; by six o'clock the number of pleasure-seekers was greater than the population of St. Louis. Over seven hundred and fifty thousand people swarmed the streets and beaches. But the daily miracle of summer railroading was not half done.

At four o'clock the boss of the "peak" trick climbed the stairs of the switch-tower at the Culver terminal. Through this railway station three-fourths of the visitors to Coney Island pass. This train-despatcher, or signal-man—unknown to the general public and unnoticed by them—controls the lives and safety of more than a thousand people

each minute of the eight hours he is on duty.

During his trick comes what the electricians call the "peak of the load." People get tired, or a storm comes up, and every one tries to get home at once.

With a nod of greeting to the man he was to relieve, the "peak" boss took off his coat and collar and rolled up his shirt-sleeves. He glanced at the brazen sky and at the thermometer in the tower. Then, for a moment, he studied the trains and trolleys on the tracks below. At his gesture that he was ready, the man who had been on duty since eight that morning gave place to him, and the monotonous calling out of track numbers to the men at the switch-levers in the tower went on without interruption: "Six, eleven, four, five, twelve."

As each number was called, a switch was set, and a car or train moved in or out. The lever-men were stripped down to sleeveless undershirts and trousers, like the gun-crew of a man-of-war in ac-

tion. They worked swiftly, but with the unhurried haste of machines.

An extra, waiting to relieve any one who might drop with the heat, dashed water over their necks and shoulders from time to time or gave them drink. The chief signal-man kept his eyes on the tracks, the cars, and the crowds, with the intense concentration of a cornered chess-player.

A thousand people a minute were coming in. The cars were going out half empty. Two hours went by. The crowd was still coming, but a few cautious ones were beginning to start for home so as to avoid the avalanche of humanity that would pack the cars later.

The Rush for Home.

Suddenly, above the mighty roar of carousel music, the strident cries of the barkers, the tooting of motor-horns, and the endless shuffle of innumerable feet, came a distant rumble across the water from the southwest. It was so faint that the men in the signal-tower glanced at each other questioningly. Five minutes later there was an unmistakable crash of thunder.

An instant more, and the black-cloud curtain that had risen from the sea obscured the sun, and, before all but the most nimble were under cover, the rain came down in sheets.

Almost before the first crash of thunder had died away the signal-man had called up the general office in Brooklyn and had given this brief message:

"Bad storm coming. Rush cars Culver terminal."

No one knows how many people piled into the elevated and trolley-cars during the next two hours. The storm lasted, perhaps, twenty minutes, but the skies were threatening for an hour afterward. The rush for home continued fiercely until past eight o'clock.

Trolley-cars and trains went out in a continuous string, every one packed to the platforms. In those two hours more than two hundred thousand people—tired, perspiring, cross—pushed through the gates, dashed down the loading platforms, and hurled themselves aboard the cars. The very momentum of their on-set packed them closer together inside.

While nearly two thousand people a minute were being hurried homeward, the despatcher and the lever-men were working under a terrific strain. As the signal-man rapidly called out number after number the men at the switch-levers sprang back and forth.

Three dropped in their tracks during those two hours, but others were waiting to relieve them, and the work did not slacken for an instant. Between eight and nine o'clock there was a lull, and the despatcher ate a sandwich. He could not have told you what he was eating. His eyes never left the cars and the crowds waiting to fill them.

By ten o'clock the multitude began gathering again, but it was not as densely packed or as fiercely obsessed as the one that had stormed the cars when the tempest broke. At midnight, when the boss of the "peak" trick went off duty, the rush had slackened noticeably.

People would keep on going home until dawn. Then a fresh army would commence hurrying to Coney Island once more. The despatchers changed places with barely a word of greeting, and the work went on through the summer night.

The man who had been handling nearly two thousand people a minute for two hours, and without a single accident, was weary. The strain and the heat had been awful. He climbed laggingly aboard a waiting train and dropped into a seat. A talkative passenger was loudly berating the railroad for its general inefficiency in handling crowds.

The despatcher asked the guard to wake him at his station, and fell asleep almost before the train started. He was not aware that he had done anything remarkable that afternoon and evening. He only knew that it had been up to him to make good on an unusually tough job, and that he had not fallen down. It was all in the day's work, anyhow.

A Busy Trick.

Under ordinary circumstances the despatcher in the tower at the Culver terminal handles more people a minute during rush-hours than any other signal-man in the world. When a crisis arises his achievements are among the most marvelous things in railroading.

No one can tell much in advance when an emergency like this is likely to arise, but these sudden summer tempests are looked for three or four times every season. To make the most trouble they have to come about six in the afternoon, after a sizzling hot Saturday or Sunday.

Every day the Coney Island railroad people—and everybody else that has anything to do with that great resort—read the day's weather forecast. The most that can be done to provide a little against being swamped by the hundreds of thousands of people who want to get home at once, is to fill the storage-tracks with "storm-trains," as they are called. But this supply is quickly exhausted, and the only thing to do then is to keep the traffic moving as fast as safety will permit.

Run Forty-Five Seconds Apart.

There are four other trolley and elevated terminals at Coney Island, but the Culver gets three times as many people—coming and going—as all the rest combined, because it is located the nearest to the biggest of the most spectacular amusement enterprises of that great resort.

There are three sets of tracks—one trolley and two elevated sections—all on the same ground level. Each section has but a single track in and a single track out. On the elevated sections, six-car trains, each holding one thousand two hundred passengers when packed, are sent out forty-five seconds apart—sometimes even a little closer when the emergency is great. On the trolley tracks the cars are sent whizzing away at the rate of one every ten seconds.

To some casual visitors to Coney Island it seems that the crowd stays late; to others, that it goes home early. Both of these impressions are correct. All the people who visit Coney Island do not come from New York and Brooklyn and the near-by suburbs. There are tens of thousands of excursionists every Saturday and Sunday from as far away as Albany and Philadelphia—from everywhere, in fact, within a radius of one hundred and fifty or two hundred miles.

Several times a season excursions from such distant points as Buffalo unload a

few extra thousands on the island. As a rule, these excursionists all have to start on their homeward journey about half past four o'clock in the afternoon, and they do it with a rush.

There are also a few tens of thousands of cautious people who decide to go home at the same time, in order to escape the crowd. The trains coming down to the island are still comfortably filled at that hour with people intending to spend the evening there, so the human income and outgo about balance each other.

The tide neither rises nor falls perceptibly. About nine in the evening the avalanche begins to gather force for its homeward movement. From that time on until midnight, even when there has been no storm to set things askew, the despatcher in the tower and the superintendents on the ground have no rest.

The despatcher at the Culver terminal, on whom so much depends, has an army of between eight and ten thousand men subject to his orders. With the exception of one surface line, all the trolley-cars and elevated railroads in Brooklyn are controlled and operated by the Brooklyn Rapid Transit Company, whose train employees number about sixteen thousand men.

When the weather indications point to a clear day on Saturday or Sunday every wheel and every man possible is diverted to the Coney Island traffic. The result is that nearly ten thousand trainmen run to the Culver terminal, and there become directly subject to the orders of the despatcher in the tower by the sea.

He Rules the Roost.

The trains and trolleys that center there start from a score of different points in Brooklyn. The majority of them leave from the New York end of Brooklyn Bridge, but there are many that get their loads from the ferries that ply across the East River and from the Subway stations in Brooklyn.

The despatcher is directly subordinate to the superintendents of elevated and trolley traffic, but these never interfere with his work so long as everything runs smoothly. These superintendents are to be found rushing about the tracks, giving directions to the men in charge of the

loading platforms, and trying to be immediately on the spot whenever bedlam breaks loose—as it frequently does in such vast, tired crowds.

They may get excited and hurried in their work, but the man in the tower must always be calm and cool, and never lose his head. He must have a complete grasp of the situation, no matter what happens. His one thought is the hundred thousand people an hour whose lives he holds in his hands, and how to keep the loaded trains moving out swiftly and as close together as safety will permit.

Cars and trains are coming in as fast as others go out. He must see that a clear path is made for each; that each gets to its proper platform and goes out again with the least possible delay. An instant's hesitation, a single error in judgment, would mix things up in the yard so that it would take half an hour to straighten out the tangle.

Any unusual delay in handling the jostling, excitable, peevish crowd would almost bring on a riot. Yet so expert are all these men who handle the despatcher's trick one after another through the day and night that there is rarely any halt in the steady stream of trains rushing in and out.

These despatchers work eight hours each. The one who goes on duty at four in the afternoon and works until midnight has the hardest task, because he

gets the "peak" of the load of traffic. The lever-men in the tower, who throw the switches which simultaneously set the block-signals, also have an arduous task. They must unerringly follow the orders of the despatcher. Every number he calls out means the pulling immediately of one of the big levers. Sometimes two or three must be set almost simultaneously to make a clear path for an incoming or outgoing train. The physical tension on these lever-men is so severe—especially on hot days—that extras are always waiting to relieve, without a moment's delay, those who may be overcome by the exhausting work and the heat.

They nominally work in eight-hour shifts also, but it is arranged so that one fresh man comes on every hour.

The number of visitors to Coney Island mounts up higher and higher each year. Five years ago half a million people in a day was considered the record. Last year seven hundred and fifty thousand was high-water mark.

New terminal facilities are being added continually to keep pace with the ever-rising flood of traffic, but always the unerring brain of the calm, cool despatcher in the signal-tower by the sea is the key to the situation. Coney Island is the most spectacular summer amusement resort in the world, and the problems of train-despatching there—like everything else—are unique and spectacular.

PENNSY INSTRUCTION CARS.

TO increase the efficiency of the men operating its trains, the Pennsylvania Railroad has adopted the use of signal instruction cars on all of its divisions. The divisions on the main line, between Philadelphia and Pittsburgh, have just been equipped.

The company realizes that safety of operation depends upon its employees having a thorough knowledge of all signals, and it has decided that personal instructions shall be given frequently to enginemen, firemen, conductors, and trainmen, which will include not only block and interlocking signals, but all other signals used in the movement of trains.

The Pennsylvania's new signal instruction cars are sixty feet long, divided into two compartments. One room will be used for examinations, while the other will contain

a table upon which is to be placed under a glass cover a large track-chart of the railroad, which can be rolled back and forth by means of rollers placed at each end.

This chart shows all main running tracks, switches, cross-overs, all signals, track troughs, stations and mile-posts. The men will be given an opportunity to study this chart prior to passing an examination on it. Each car is provided with a set of model signals which can be manipulated so as to show the signal indications the men receive out on the road.

The cars are in charge of examiners, who will have charge of all examinations, with the exception of those on machinery and air-brakes. The cars may also be used for examination of employees on other subjects than signals—such as train rules.

A HEART OF THE NORTH.

BY GEORGE VAN SCHAICK.

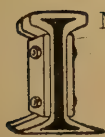
A Long Journey Through the Forest, Guided
by the Wounded but Ever-Patient Anne Marie.

SYNOPSIS OF PREVIOUS CHAPTERS.

PIERRE, a young French-Canadian with Indian blood in his veins, while hunting and trapping in the Canadian woods rescues Anne Marie, a young Indian girl, and her old father, whose canoe has been upset and demolished by a moose. Father and daughter are badly injured. Pierre takes them to his tent, but the old Indian is so seriously hurt that he dies, and Pierre is left with the girl on his hands. A half-breed and an Indian appear at the camp. This half-breed, Simon, who was the husband of Anne Marie's sister, but who, through his brutality, has killed his wife, is in love with the girl, and tries to make Pierre give her up. This Pierre refuses to do, and the girl and he scheme to escape in the canoe. It seems impossible, and, finally, Anne Marie, whose injuries are very painful, endeavors to make Simon swear on the grave of her father that he will protect her and take her to the home of her cousin, Antoine. Simon promises, but refuses to swear. He insults Pierre, and a fight ensues, in which Pierre succeeds in felling the half-breed and, with the help of the girl, binds him. Anne Marie, after damaging Simon's canoe in such a way that it will take some hours to mend, helps Pierre and the Indian to pack their canoe, and she and Pierre start up the river, leaving the Indian to return and release Simon. Simon and the Indian follow as quickly as possible, but again Pierre conquers the half-breed, in a desperate hand-to-hand fight, and he and his companion are made to take a solemn oath to cease the chase. Anne Marie develops a high fever which promises to delay the two in camp for some time. An inventory of supplies shows Pierre that they have enough to last them for about four weeks.

CHAPTER VII.

The Form by the Fire.



IN the small hours of the night Pierre finally obtained some sound sleep that lasted until daylight. The rain had stopped, and the weather was cold, with a keen, frosty bite. Some water that he had left outside the tent in one of his cooking-pots was filmed over with ice. A brisk wind was blowing, and the tinted leaves were flying over the river and floating down upon the dark water. High overhead, from time to time, triangular flights of ducks were making their way to the southward.

Anne Marie seemed to be suffering decidedly less, but her breathing was still much oppressed. She smiled when Pierre, who felt more cheerful, assured her that

she was ever so much better and would soon be able to travel.

His confidence was not assumed, for the brighter weather had dispelled the blues from which he had suffered the day before. He went about his preparations for breakfast with a vim, whistling and singing, and occasionally interrupted his work to throw a stick for Paddy to fetch.

He boiled some pike, and decided to catch more if they would only bite. There was a rocky place at the head of the little bay where it might be possible to get some *doré*, and there he placed several set lines baited with pieces of pike.

Anne Marie consented to drink some tea and eat a bit of bread, which she soaked in it. She was still very weak, but the fever was nearly gone; yet, whenever she moved, her respiration became very fast, and she was always glad to lie down again and keep still.

Began in the April Railroad Man's Magazine. Single Copies, 10 cents.

The dog, in his foraging about the camp, raised a hare, of which Pierre caught a glimpse before Paddy had fruitlessly chased and lost him in an adjoining swamp.

Rabbits were not to be despised, and Pierre took a roll of copper wire that was fastened to the small bundle of traps, and made some snares. If he could catch a few, they would make a welcome diversion in their diet.

The skins would also prove useful if they were detained long, for they were ill-provided with clothing for a winter journey.

The fish heads he had thrown away the day before had disappeared from the bank, and tiny tracks revealed the identity of the thieves. He could probably have caught one or two mink with dead-falls, but he decided it was not worth while.

He went off with his snares, and placed them in the little paths that ran through the raspberry-bushes and low shrubs near the shore. When he was through with this, he went to inspect his set lines, and was glad to pull out a couple of fat wall-eyes with gold-edged scales; the other baits had been stolen, possibly by chubs.

Thus the morning passed away, and the constantly recurring subject of food came up, for it was nearly midday. After lunch he idled away some time, speaking to the girl now and then, receiving nods for answers, as a rule, and attending to her wants assiduously.

It seemed strange that he could do so little for her, and that she never seemed to want anything unless he suggested it. He had opened the tent-flaps widely, so that she might look out, and, as he moved about, her eyes followed him, for she did not understand him yet.

Why did he take so much trouble about her? He had given up his voyage, and now was quietly biding his time, waiting for her to get well. If he had ordered her to get in the canoe, and had paddled off, she would have thought it perfectly natural.

She would have followed, somehow, over the portages. Wounded things had to drag themselves to places of safety or die, and she would have done likewise, so long as the breath of life clung to her body.

But this man said that she was not well enough—that it would make her suffer—and brought her food, and covered her at night with blankets. These things he did without appearing to think about them, and this day he whistled and sang as if there were no hard riddles in the world for men to solve.

When he started across the river to troll for pike, she followed him with her eyes so long as she could, and was glad to see him again whenever he passed in her line of vision on his way up and down the shore.

On his return with several fish, she was happy; and it seemed strange to her to feel so pleased at a man's home-coming. To her that sort of thing had so often meant the disgruntled return of the unsuccessful hunter, or the arrival of a famished one with skins to prepare, with clothing and moccasins to mend, for whom food had to be made ready, who first partook of it, and of the best thereof, often leaving scant pickings for the women and children.

It was good to see them when they brought plenty of food and pelts, and it was evil when they were empty-handed; but there was no deep pleasure in it, no expectation, nothing that could be translated into a desire for a mere presence.

Now that she felt that sensation, she did not understand it, and accepted it as one of the phases of an existence in which the unexpected ever occurs. She had seen women that had borne children, and had noted how, nearly at once, the instinct had awakened by which the mother and child became inseparable things.

All these things were not clearly defined in her mind. There had merely awakened in her a sense of possession such as the child feels for its doll, for even Indian girl babies have dolls, and play with them; and in them, as in others, the instinct of motherliness develops even before the capacity for love. This girl knew that one should be grateful for kindness, and her sentiment appeared to her as a manifestation of gratitude. She had so much to be thankful for that it did not surprise her that this feeling should take a new form.

When Pierre returned, she was very glad, though she scarcely showed it. Like all Indians, she was afraid of being

laughed at, and possessed a sentiment of dignity that could only melt away after longer acquaintance.

Her face was, therefore, nearly always impassive when he spoke to her.

He had several fish, and showed her one that weighed probably ten pounds.

"It isn't so bad," he said. "But I'm disappointed. Either there are not many of them or they are not biting well."

"Plenty pike," she answered, "but on the first of cold weather fish often bite badly."

He went off again to investigate his set lines, but found only a small *doré* and a big chub, which he kept for bait. After cleaning his fish, he went back to the tent, intending to cut some more firewood. The ax was very dull, and he began to sharpen it with a small file.

He was seated near the girl, in the widely opened tent, and suddenly she grasped his arm, and he saw that she was pointing at the opposite shore, perhaps half a mile up. Looking keenly, he finally caught sight of a large grayish animal, showing very indistinctly in the bushes among which it stood. The two watched it for some time, until it moved back into the woods and disappeared.

"Caribou, wasn't it?"

"Yes, atek," answered the girl. "Big doe."

Pierre took the gun out of its cover, and felt in his pockets to see if he had a few cartridges to spare.

"I'm going to look," he said.

She watched him go off once more. He left the dog with her, for Paddy was of doubtful utility as a hunter of big game. The canoe went straight to the other shore, then gently up stream. The girl saw Pierre land near the place where they had seen the animal. He pulled the canoe up, and bent down, looking for tracks, and then waved his hand at her and disappeared in the woods.

It was then within an hour and a half of sundown, and she settled down to wait patiently. The time seemed long, as the sun kept on going lower and lower, and she began to wonder that he did not return.

Then, faintly, a long way off to the east, apparently among the distant hills beyond the river, she heard the booming of a shot, and then of a second one. They

were very faint, for the smokeless powder made but little noise. In fact, an ear less well trained than hers would scarcely have noticed it.

Then came upon her a feeling of some anxiety, for he must be very far away, and the sun had set. He was only a *mon-sieur*, and he might get lost in the woods coming home. It would be dark before he could get back.

It was a constant subject of laughter among the guides, both Indians and *habitants*, this amazing ignorance of the people they took with them to fish and hunt. Some could not see a plain bear-track before them, and others could not follow a blazed trail without getting lost, while there were hardly any who could light a fire in the woods if there was the slightest bit of rain or wind.

They were strange people, with much money, most of whom could not speak French, and who went into raptures over a *ouananiche* such as the boys at Pointe Bleue sometimes caught with a hand-line in the early spring.

But this man was not so stupid as all that—he knew something of the woods. Perhaps, if he were lost, he would climb a tree to make out his bearings. She ought to make a big fire, so that he might see it from a high tree or from the top of one of the hills.

Painfully she dragged herself out of the tent. She had not realized how weak she was. Every effort cost her pain, and every breath she took stabbed her wounded side, yet she gritted her teeth and went on her hands and knees to the place where the embers were still smoldering.

There was a good deal of wood ready-cut, and she gathered the burning ends and fanned them with a piece of birch-bark. Little by little she added other bits and splinters and got a flame, upon which she placed the cut logs until she had a great bright fire.

But she realized that all she had would not last more than half an hour at this rate, and took the ax, which Pierre had left behind, and dragged herself to where he had felled some dead trees.

Here she had to rest for a long time before getting up on her feet. She gave a few good blows, and the chips flew in a workmanlike manner, but presently she felt faint, the ax dropped out of her

hands, a dimness came over her eyes, the world went around and around and she fell unconscious upon the mossy soil of the forest.

Paddy came to her and sniffed at her, put his paw upon her, and whined a few times. Then he sat by her and waited patiently, but as she did not move he repeated these maneuvers, and, as they proved unsuccessful, uttered a long, dismal howl.

In the meanwhile, Pierre had followed the tracks of a cow caribou. The animal was evidently making its way quietly toward the east. In wet and mossy places there was the quadruple mark of each hoof that he knew so well.

It was already getting late and he wondered whether he would be able to reach her before sundown; it was worth trying, however.

As venison, it was really better than moose, and the back fat was desirable, as his supply of pork and butter for frying was pretty low. At any rate, he would follow on a little farther, cautiously, and would then go back to camp and return the following morning and make a day of it.

In many of the wet places he noticed that the water had not yet filled the tracks. She was probably quite near. By morning she might have traveled very far. In some mossy places she had stopped for a moment to crop the lichens.

Suddenly, from a distance, to his right, he heard the call of a stag, and so near to him as to startle him came the hind's answer. There was a little clump of alders close to a brook, about sixty yards away, and from this emerged the cow, sniffing in the direction of the stag's call. Something frightened her, or she decided to make a dash toward the stag, for she started with a great leap.

At this moment the rifle rang out—and she fell. But she was up again in an instant, and Pierre shot once more as she disappeared among the trees.

Pierre then realized that the night was falling, and that he had hardly been able to see his sights. Still, it was certain that the first shot had hit her hard, probably somewhere about the right fore-shoulder. The second was very doubtful.

It was getting dark so fast that he could hardly follow her track, but just

as he began to despair of finding her, he saw his quarry lying upon one side—quite dead.

Hastily he bled it and gralloched it, and removed a hind leg to take back with him. But all this took some time, however much he hurried. He took birch-bark and split some sticks in which he inserted pieces of the bark, and planted them around the carcass.

He also placed a handkerchief over the animal and fastened it with a stone, to scare away the wild prowlers, and then began to consider the problem before him.

The weather was good enough and he might have lighted a fire and remained there until morning, but he was rather anxious about the girl. The idea suddenly arose in his mind that while he had left her the Carcajou, breaking his oath, might have come down and captured her.

The notion of such a possibility made inaction intolerable. He had taken the gun; she was left with no defense. But even if this had not happened, sick people were never so well in the evening. She needed food, a fire, tea, perhaps medicine.

Of course, she would not worry about him. She was an Indian and accustomed to waiting; but, after all, it would not be right to leave her there all night, with no care.

The great river was directly west of him, and he could certainly fetch it with his compass, though it would be a tough job through the tangled woods and swamps.

The caribou had led him through a hard country, yet she had unerringly found good going, but now it was out of the question to follow the back track in the dark.

He started hurriedly, but in a short time could no longer see his compass. After a while, he lit a match and looked at it. He had only about a dozen with him. They would not last very long if he looked at his compass often, and he must keep a few to light a fire with, in case he could not get out of the woods that night.

He walked on more slowly, bending every effort to keep his direction. He could not see the north star, for the sky

was cloudy, and after an interval he decided to light another match.

Before doing this, however, he made a torch of birch-bark and lighted it. It burned some time, during which he made progress.

He stopped often to consult the compass, but he soon got up to his knees in swamps and had to push through impenetrable thickets of alders and vines.

His torch went out, but he had seen, just before, the tops of a high clump of trees in the direction he wanted to follow. They were limned very black against the fainter darkness, and for some time he managed to keep them in sight.

Several times he fell, and once sank up to his shoulders in the black ooze of the swamp, but succeeded in pulling himself out. The chill of the night struck him and his teeth began to chatter.

Finally, a small crescent of light appeared in a rift of the clouds and he decided to climb a tree to see if he could get a glimpse of the river. A tall spruce was ascended with much difficulty, and once at the top he could see nothing, but as he rested for a moment before beginning his downward journey, he discerned, probably less than a mile away, a small flickering light. He kept on peering in that direction and the light shone steadily.

"It must be the camp," he said to himself.

The moon was showing more brightly. It would soon be quite high and it would help him to continue in the right direction.

Coming down from the tree he picked up the gun and the meat, and soon found somewhat better going. Lighting another torch, he found that he still had five matches. The air was still and cold and he shivered as he went on. Once he stopped, thinking that he had heard a strange sound, but decided that it must have been the hooting of an owl.

By this time, he must be getting pretty near the river and new courage came to him. Falling over dead trees and stumbling over rocks, tearing through tangles of alders and vines, he suddenly came out upon the shore of the longed-for river.

He stopped, delighted, and wondered

whether he was above or below the place where he had left the canoe, but on looking up-stream he saw a flickering light upon the opposite shore.

He could see his way fairly well now, but stopped suddenly, for in the direction of the light, in the still cold air, arose a mournful howl, prolonged, increasing in intensity toward the finish.

"It's Paddy!" he exclaimed. "I hope there isn't anything wrong."

He stumbled along the shore, through brambles and berry bushes, fighting his way through alder clumps, now and then advancing over loose stones and along rocky ledges, and when he arrived opposite the light he gave a long, loud call.

But there was no other answer than another howl, this time followed by loud barking.

He finally reached the canoe and paddled back to camp, to be met on the shore by the excited Paddy, who would not stop barking and whining.

He hurried to the tent, and groped in the darkness, calling Anne Marie, but she was gone.

Paddy acted strangely, coming to him and running off. Following him, Pierre, a few yards away, nearly stumbled over the girl's body.

He lifted her in his arms and carried her back to the tent, where he lighted the precious candle.

"What is the matter, Anne Marie?" he exclaimed.

She was looking at him, and smiling faintly. The touch of this strange man seemed to have brought life back to her. She did not know how long she had lain senseless.

"I went to cut wood for the fire," she said.

"That was a stupid thing to do," he answered, somewhat angrily. "Now you've made yourself worse again."

"Yes, stupid thing," she answered patiently, with some sadness in her voice.

"I killed the caribou cow," he informed her.

"Ah, good."

"I had a hard time coming back, but I saw the light."

"Yes, I made a big fire," she answered.

And Pierre's conscience smote him, for at that moment he realized that she had suffered much to give him help.

"I'm sorry I said that just now," he said meekly, picking up her hand and pressing it at the same time.

"I am very glad you have returned safely," she answered. "It is good to see you."

He went to work to put on dry clothing and to brew some hot tea, while the girl gazed at his face lighted by the fire's glowing. A deep contentment in her heart, a feeling of peace and happiness that was a very new element in her life, made this evening seem a very radiant one to her.

Pierre, in some manner that he was hardly conscious of, felt attracted by this little savage girl's evident devotion. It was a pleasant thing. Her gratitude and admiration were plain enough. Taciturn and quiet though she might be, there was now often in her eyes a light that shed a brightness over him, that requited him for the little he was doing for her, that gave him that wonderful and charming sensation that one is becoming necessary to some one's comfort and happiness.

It was within his inner self a mere slight feeling, one as yet shapeless and unformed, the realization of which would have given him great surprise.

He basked in the contentment that was wholly due to his successful hunt, to the reaching of camp after weary toil, to the hot food before him, to the welcome of the dog and the girl, and did not know that, either because pity is akin to love or merely because her little heart was going out to him, his own was being drawn toward her, as it had long been drawn toward the glory of her land, and the beauty of her lakes and mountains and the freedom of her life.

CHAPTER VIII.

The Journey Is Resumed.

NEXT morning Anne Marie was still very weak, and breathed with difficulty; but the pain had left her side, and she felt pretty well as long as she remained still.

Pierre attended to her needs as usual, and after breakfast, for which he fried a good slice of caribou meat, he went to look at his rabbit snares.

He had only caught two, a rather

scanty return for his pains. He cleaned them quickly and stretched the skins to dry. Then he placed near the girl everything she might need during his absence, and cautioned her to remain quiet.

Taking his tump-line and rifle, he said that he was going back to get the rest of the meat.

Anne Marie assented in silence, and getting in the canoe he paddled over the river to the place whence he had started on his hunt.

As often happened to him in the woods, he began to think of the contrast there was between the life of the wilderness and that which pulsates in great cities.

On their outskirts there always seemed to be a kind of leprosy; tumble-down shanties, anemic vegetation, sordid ways of making a living, all showing like an exfoliation due to decay within. Going into the huddle of people, one found poverty, crime, disease, and, greater than all these, hunger in places adjoining plenty of food, cold where fuel was abundant, tears next to laughter.

Out here, a hungry Indian would nearly starve before disturbing a cache, he was as well provided as any that had food, for they would share with him.

Out here, the filth of the civilized world was far away, the air had been unbreathed of man, the water unpolluted, the land free, the fuel belonged to all, the fishes and the beasts to whoever could capture them.

What did it matter that it was a land of cold and hunger? It was also a land of freedom, full of riches for generations to come, and the people that dwelt in it were strong and self-reliant. They could have laughter and good appetite and sound sleep. They could live long, they could have affections, they might know love.

His thoughts went back to the camp, where he had left Ou-memeou. Had he been unrestrained by his ties to another world, who knows but that he would have sought her for a mate. She was very beautiful, but he thought most of her courage, of the wild spirits she showed, of her instinctive modesty, of the deference she paid him as a superior being.

Yet was she inferior? What heaven

was there in him that had raised him above her? It was but a matter of absurd conventionality, and this was but a fetter, a thong that bound him, his right to his own life.

Aye, Ou-memeou could be a fitting mate to a real man, a mother of strong children.

But he shook off these thoughts, smiling vaguely at himself, and began to pay attention to the job before him.

He had to proceed slowly, following his own tracks and those of the caribou, but there were many places where neither seemed very distinct, and he had to look very carefully.

Finally, he reached the spot, and near it observed some bear tracks. The animal had not touched the carcass, however, evidently fearing the indications of man's presence Pierre had left behind him.

Pierre went to work to cut up the venison. He took the other hind leg after divesting it of the bone, and all the meat from the saddle and a good deal from the foreshoulders. With some fat, the liver and the tongue, he wrapped it all up in the hide, tied it up into a pack and slung it over his forehead.

It was a big load, but he returned quickly, having blazed some of the trees. He deposited it in the canoe and covered it thickly with boughs against the attacks of meat flies. Another trip yielded about half a load more. It was noon before he was through and he was greatly pleased with himself.

He sat smoking his pipe while resting a moment. He became conscious that Paddy, on the other bank, had detected his presence and was barking at him, running up and down the shore.

A good shove sent the canoe into the stream, and it seemed to him as if his arms had grown stronger as he wielded the paddle, as if his stature had increased, as if there was something in him that made him a bit more of a man.

He landed, petted the dog, spoke cheerily to the girl, and took a huge delight in cooking a good lunch. He boiled the caribou tongue and insisted upon the girl eating it. It was a tidbit, just the thing for an invalid.

She looked surprised and refused it at first, but as he insisted she complied with

his wishes. He was incomprehensible. It was not the Indian way for a man to give the best pieces to the women.

He ate a mighty lunch, and Paddy fed so well that he slept all the remainder of the afternoon, during which his master worked away at his meat, cutting it into strips and smoking it, puffing away at his pipe in the meanwhile in great contentment. He had hunted, made a good shot, worked hard and he was busy. All this was enough to make a man mightily happy.

"We won't go hungry now, Anne Marie," he said, "even if we are kept here some time. But we'll be able to start soon, and I suppose in the end we'll throw a lot of the stuff away."

She nodded with a smile, and somehow he caught himself wishing that she were not so silent. He would have enjoyed jests and an animated talk; but then he realized that she was ill, that she belonged to a race that is taciturn before strangers, that she was a wild thing that was not yet tamed, and he felt a desire to talk to her, to teach her something—he knew not what—in order to attune her to his own feelings.

On the next day, during a period of idleness, he wondered why the girl continued to breathe so fast while apparently seeming to have no pain, and it was only then that he remembered that people with pleurisy sometimes got a lot of fluid in their chests, and that it interfered with respiration at times, and that it often had to be taken out.

When this idea came in his head, he began to feel much concern. Why had he studied medicine such a short time only? In a few moments he had thought over the matter carefully and recollected that the chest full of water would sound differently, when struck with the fingers, than a healthy lung. It is just like a difference between hitting a full or an empty barrel.

"Look here, Anne Marie," he said, "I want to examine your chest to see how you are getting on."

She instinctively drew the blanket more closely around her, and he felt provoked.

"Don't be a fool, girl," he said.

His tone was not as gruff as his words, though, and as he drew the blanket down

she closed her lips tightly and allowed him to have his way.

She was still wearing his spare coat, and this he removed, as gently as possible, and divesting her of a few more things partly bared her chest. He felt some surprise when he noticed how white the skin was compared with her face and hands. He had not paid attention to it before.

The few adhesive straps he had placed on her chest were rather wrinkled up and loose, and appeared capable of doing little good, so he pulled them off.

She first time he tapped with his fingers she gave evidence of pain and he chided himself for a fool. He ought to have known better than to do that just over the place where the ribs were broken. A little farther back, however, his striking produced a dull sound. At a corresponding place on the other side of the chest the result he obtained was entirely different.

"That's it," he decided. Here was the deuce to pay. As far as he knew, those cases, perhaps, never got well unless that fluid was removed, and of course he had nothing to do it with, and did not know very well how it was done. But after all, in some instances, they must surely get well without that. It could hardly be necessary in all, at least he hoped it was not.

After he was through he replaced her clothing and sat there beside her, deeply cogitating, until he noticed that her eyes were persistently fixed upon him questioningly.

"You want to know, Anne Marie. Well, you'll be well soon—then we'll start away," he declared.

He was assuming a confidence he was far from possessing, but she seemed pleased.

"The poor little thing takes everything I say as gospel truth," he commented to himself. Somehow it made him feel very kindly toward her. He experienced a sensation somewhat similar to the one he recollected having felt when Paddy was a pup, and had begun to follow him about in preference to other men.

He remained seated by her, idly cutting up some plug tobacco.

"Yes, it's all right, Anne Marie.

We'll soon travel on. At first you will not be able to paddle, but after a few days you can help. I'll have to work going over the carries with all that stuff to pack across, but it's a good thing to have plenty."

Unconsciously, just as he would have petted the dog, he stroked the girl's head, but never saw the wonderful light that began to burn in her great dark eyes.

Then he amused himself for some time by teaching her some English words. She knew a few already, and, a docile pupil, she repeated various sentences after him. "Good morning. Are you onry. I ope you ave slept vell. De dog as e-ten de mit."

"No, not mit—meat—Anne Marie."

She hung upon his lips, so anxious was she to please, and repeated the difficult word until her teacher expressed himself as thoroughly satisfied.

This was really quite interesting. She was intelligent. It was like teaching Paddy new tricks. She was quick to learn, and moreover, she did not forget. In the loneliness of the great woods she was becoming a companion.

She was no longer the poor child he had merely wished to help because she was a living, suffering thing. Gradually she was losing her reticence, and from her he learned the legend of men fishes that inhabited the great waters, and of whom the last had been shot within the memory of the older Indians, it seemed.

She told him why the skulls of animals were hung upon peeled saplings near the camping places—to propitiate the spirits of the trapped fur bearers; and told him tales of the folk-lore of Montagnais and Algonquins. He had to stop her because it seemed to tire her a good deal to talk.

"Thank you very much, Anne Marie," he said. "It is all very interesting, and you must tell me more about these things another time, when you are stronger."

Unconsciously again he patted her hand, smiling, and rose to make supper ready. He brought her food, as usual, and was very attentive to all her needs, and the Indian girl, having found a new life, was lulled and rocked in it, experiencing a strange, quiet happiness she could not understand, but accepted with a gratitude ever growing greater and more intense.

Pierre worked hard at his caribou meat. There was plenty of time and he cut his strips very thin and smoked them with great care. They were hanging all about the camp over many sticks resting in the crotches of upright poles. There was no room in his packs for all this extra food, and he made ingenious bundles with birch-bark.

With these preparations and the fishing, which daily grew poorer, besides the capture of occasional rabbits in his snares, which he had set on the other side of the river in a swampy place where they were fairly numerous, about ten days went by.

He had scraped the caribou hide carefully and rubbed it with brains and wood ashes, hoping it might be of some service. The weather grew colder day by day. The middle of October was approaching, and on two mornings there had been sharp frosts.

The deciduous trees were nearly bare and the winds blew keenly. Nature seemed to be preparing for the coming of an early winter. The little stove had been rigged up within the tent, and in the evening, before going to sleep, its heat was grateful. In the morning he made it roar, just for the pleasure of it, and did most of his cooking upon it.

Anne Marie was getting better. Her breathing was becoming quite easy, and, on sunny days, during the afternoon, she sat under a tree, where she spent hours gazing at the placid stretch of river, and following with her eyes the tall young man who, with his pipe everlastingly going, was fussing with some of the preparations for the trip.

One morning, as he awoke rather late, he was surprised to find her up. She had lighted the fire in the little stove and was sitting by it. With a wonderfully coarse needle and some thread she was mending a hole in one of his heavy woolen socks.

"Why, Anne Marie," he exclaimed, "what are you doing?"

She turned to him with a smile.

"I could not lie down any more," she replied. "I am better now. Time to get ready for a start."

"But you are not strong enough yet," he objected.

"I can sit in the canoe. No work.

We'll travel on easily. Get that much nearer to Lake St. John."

He reflected for a moment and thought that it was a wise idea. If she could sit in a canoe it would do her no harm. At any rate, they could go on to the head of the next portage and camp there. If she was not strong enough to walk across, they could stay there for a day or two.

"Do you think we could start to-day?" he asked eagerly.

"Yes, we'll make ready now."

With a joyful feeling he went to work, whistling and singing. His energy seemed to propagate itself to Paddy, who barked and scampered with delight when he saw the tent being pulled down.

Everything was ready in less than two hours, including the time he took to go across the river to collect his snares, which he would not leave behind. He found four rabbits, which he brought back in triumph. He was really very tired of rabbit, but Anne Marie enjoyed them, and so did Paddy. There were enough skins to make a rough blanket.

The canoe was rather heavily loaded when the time came to start. He carefully led Anne Marie down to the shore. She was very weak, and at first it seemed as if her legs could only carry her a very short way.

She seemed surprised to realize it, and he assured her that this would soon wear away. He got her comfortably ensconced in the bow of the canoe, and with a last look at the place they pushed off.

The journey was on again. It was a fine frosty morning; the air was clear and bright and a fair wind blew down the river. Pierre paddled strongly and with each sweep of the paddle the little craft, carried along by the current, went a good distance.

Again they were watching the shores that went by, and noted the indications of life along the river. There were ducks, at times, rising before them a long way ahead. But most of the birds, never very numerous in that region, had already departed. A couple of loons were swimming about in one broad lakelike expanse of the river, and farther on a lone gull gave a rasping cry and sailed away from the top of a great rock. Then the river narrowed down again and became quite rapid.

"You remember this portage?" asked Anne Marie.

"I suppose so—why?"

"The water is very rapid just before reaching the landing-place. It takes two to fetch it safely. It would be easy to be carried over the falls. There is a place higher up where they land, at high water. We must stop there."

"Just as you say, Anne Marie."

It was nearly noon when they landed, and Pierre helped the girl out of the canoe. She was pleased to find that she was a little more steady on her feet than when they had started. Yet she was very glad to lie down with her back propped with the bundle of blankets, while Pierre started a fire and began the never-ending boiling of the kettle.

He made a strong stew of caribou meat, with a little rice. With bread and tea, this made a fine meal, and Anne Marie ate with better appetite than she had manifested for a long time.

"Let me see, how long is this portage?" he inquired between mouthfuls.

It was ever a surprise to her to find that he never remembered exactly the places over which he had already passed. He recognized everything, but was always a bit hazy until he reached them. He was deficient in the training which to her was second nature, and she could hardly understand that this wonderful man should be lacking in any faculty. But then he was something out of the common, that could not be judged by the standards applicable to her people.

"It is not far," she replied. "Few hundred paces. But there is a hard hill to get down. Don't try to carry too much."

But he lit his pipe, and, in the pride of his strength, piled up packs on his back until he carried about a hundred and fifty pounds. He followed the path which generations of Indians had worn over the portage and soon came to a steep climb that made him stop for a rest.

Then again he went on and reached a place where the way led down a steep and crumbling side hill, covered with scanty herbage everywhere but in the path, where the bare sand showed. He remembered that he had puffed hard on his upward journey when coming up that place.

Slowly and carefully he made his way down. The sand was loose and gave an insecure footing, and whenever he slipped a few inches his pack would thump down hard and give his neck a wrench. He finally reached the bottom and placed his load upon a flat rock, and rested a moment before going back. Two more journeys consumed nearly an hour, leaving nothing more to carry but the blankets and tent, with the rifle and a small bag of provisions.

"What do you think, Anne Marie? Do you want to try it?"

She arose briskly, and he took the remaining bundles. Placing one arm around her waist he started slowly. They progressed steadily while they were on fairly level ground, and Pierre saw that it gave her pleasure to feel that she was getting on so well. After reaching the hill, however, she began to breathe hard, and soon stopped.

"It's too much for you, is it?" he asked.

With scanty breath she replied that she would be better in a minute, and they sat down for a moment. She then rose again, her teeth tightly clenched, but soon her mouth was open wide in an effort to breathe.

"I'll carry you," he said.

He bent down and with his right arm encircled her knees.

"Bend down," he directed her, "and put your arms around my neck."

He did this so quickly that she had no time to protest. She did as she was bidden and he lifted her easily, like a child; she clinging with her left arm to his neck.

There were some vines and saplings along the upward path, and with his left hand he grasped them during his climb, putting down each foot carefully.

Before he reached the top he was blowing hard. The last few steps were tough, but he reached the summit and put her down carefully.

"You stay here and rest," he told her, "until I bring up the rest of the things."

"You are tired," she said.

"It's nothing," he replied cheerfully. "I had a good deal harder time carrying the canoe."

This was not strictly true, but the girl smiled and he went after the remaining possessions and was back in a few minutes.

She asserted her readiness to go on. There was a fairly level place on top of the hill for about fifty yards, and she made it easily, but when they came to the steep descent Pierre felt uncertain.

"I'm afraid I'd better not try to carry you down there," he said, fearing a slip.

He went before her, she leaning upon his broad shoulders. They had to stop several times. Once when her feet slipped in the loose sand an expression of pain came over her face, but he did not see it.

They finally reached the bottom. The girl was looking pale, but was elated at her success.

"Perhaps we have done enough for today," he suggested.

"No, bad place to camp here," she replied. "Only five miles to the next portage."

He looked at his watch; it was only three o'clock, and the next carry could easily be made.

"Is it a good camping place?" he asked.

"Yes, good at both ends."

He loaded the canoe again, but in order to bring the girl down he had to lift her to the shelf of rock upon which he stood. Paddy jumped in and they started.

He turned his head back, as the swift water was carrying them away, the better to see the beautiful falls amid the spray and spume of which they had started. The brown water roared down full fifty feet in one grand leap, in a furious mass, between jagged rocky cliffs, the tops of which bore a few stunted, twisted, wild-looking trees.

The girl could, like all her people, appreciate the beauty of nature, but before his worship of it this feeling was awakened in her to greater depths.

"It is beautiful," she murmured.

This time he was the one to answer with a nod, for it was too grand for words, but he felt glad that she shared his admiration.

The falls disappeared behind them, as the river pursued its sinuous course, and Pierre, who was getting slightly tired, paddled easily. There was plenty of time in which to reach the next portage and make camp before dark.

Anne Marie was thinking. She had known an old Indian who had traveled

many hundred miles with his sick wife to reach a doctor and consult him about the old woman, whom he had carried over every portage in a rough chair suspended from his tump-line. But she was a cripple, and it was the only way.

In her case, things were different. If the young man had allowed her to, she would have managed it somehow. But he had not permitted it. He had bent down and lifted her like a child, masterfully, in a way that could not be resisted, and it had been a strange and pleasant sensation.

And now, to the child of the forests, the river was beginning to sing a more beautiful song, the spirits of living things and of dead ones were smiling upon her, the foam and the roar of the great waterfalls spoke with an eloquence she had never conceived possible. She had been as a child in those strong arms, and their possessor assumed, in her eyes, some of the attributes of the great things that were to be worshiped—the Manedo of her fathers, the God of the present generation.

Whenever Pierre chanced to look at her he found that her eyes were fastened upon him, and each time the long lashes fell and concealed them. She had never before spoken to a *monsieur*—one of the breed of strange people who came from the hotel to visit the reservation at Pointe Bleue, who looked upon the Indians as curious beings and then disappeared to make room for others.

They were surely not like this one, who was singing, at this very moment, "A la Claire Fontaine," with a voice that was as the music in the church.

There could not be any others like him. They always took guides, and she could not understand why he had gone into the woods all alone. She did not seek to fathom the mystery of how *le bon Dieu* had led him in her path, when she was drowning, and had kept him there, making her present life so happy, notwithstanding the sorrows that had gone before.

At times her lips formulated a prayer that she hoped would reach high up in the heavens, for the welfare of the young man who was singing blithely as they approached the portage.

(To be continued.)



The Railroad Man's Brain Teasers.

Puzzling Problems that Promote Patience and Propagate a Propensity for Practical Proportion.

MR. O. M'H. SHUMAN, writing from Mohall, North Dakota, sends the following teaser:

Place a pair of truck-wheels on the rails, fasten and wind one end of a cable around the center of the axle, with loose end drawing from the under side of the axle. Couple a locomotive to the cable and give the engineer the signal to go ahead.

Now, which way will the truck-wheels revolve—toward the engine, away from the engine, or will they skid on the rails?

From T. J. Scanlin, Boone, Iowa, we have received the second teaser of this month's supply. Here it is:

Three towns, A, B, and C, are situated along a double railway line. A freight-train leaves A and stops 7 minutes at B. Two minutes after leaving B, it meets an express-train which left C when it was 28 miles on the other side of B. The express travels twice as fast as the freight, and runs from C to B in $1\frac{1}{2}$ hours. The express also runs from B to A, and, returning, arrives at C 3 minutes after the freight-train. What is the distance between A and B, and B and C? What is their rates?

ANSWERS TO JUNE PUZZLES.

Mr. Niles Searls's puzzle: Let "a" equal the length of train and "x" the distance that the brakeman traveled to the rear before he met the rear end of train. Then "a—x" will equal the distance the train was traveling while brakeman traveled distance "x." As all speeds are constant, we have the proportion as follows:

The distance "x" traveled by the brakeman to the rear, is to the distance "a—x" traveled by the train in the same time, as the total distance traveled by the brakeman, $2x$ plus a, is to the total distance traveled by the train, a.

By proportion this gives: $x : a-x :: 2x \text{ plus } a : a$. From this we can get the value of "x" and find it to be .7071a.

Substituting one mile for the "a," and the value of "x," as determined in the expression $2x$ plus a, we have a total of 2 miles and 2,186.9 feet.

Mr. H. R. Middlebrook's puzzle: Six inches.



The Sunny Side of the Track.

What the Busy Joke-Smiths of Our Esteemed Contemporaries Have
Turned Out Lately in the Hope of Making
Us Laugh.

NEEDED A FEW MORE.

C. BENJ. CONDON, general agent of the Hawley lines, and J. R. Holcomb, general agent of the Kansas City, Mexico and the Orient, recently journeyed to Oroville in an effort to wrest from the Western Pacific large freight contracts. Adjoining the office of the hotel is a fire-house—a place where liquids can be procured—and after the long and tedious journey from this city they adjourned to the fire-house.

Holcomb wandered around the spacious room and let his eyes wander to the walls, where he spied the notice:

"We will pay \$5 for 1909 Lincoln pennies."

"Did you see this, Higgins?" he asked.

"No. What?"

"Cast your eyes at the sign on the wall."

Higgins did so, and then hurriedly opened his suit-case and, throwing his wardrobe about the room, soiling the evening dress shirts, dug deep into the portmanteau.

"What are you looking for?" asked C. Benj. Condon.

"Why, I have one of them in here," was the reply.

After a thorough search he found a Lincoln penny dated 1909, and presented it to the man behind the counter.

"Does that sign go?" he asked the man.

"Sure," was the reply.

"Well, then, there you are," shoving the coin across the hardwood.

"That's all right," said the man; "but you'll have to get 1908 more of them."—*San Francisco Call.*

HE HELPED.

THE brakeman was a novice, and there was a very steep grade to mount. The engineer always had more or less trouble to get up this grade, but this time he came near sticking. Eventually, however, he reached the top.

At the station that crossed the top, looking

out of his cab, the engineer saw the new brakeman and said, with a sigh of relief:

"I tell you what, we had a job to get up there, didn't we?"

"We certainly did," said the new brakeman, "and if I hadn't put the brake on we'd have slipped back."—*Washington Star.*

MAKING IT CLEAR.

"I BEG your pardon, waiter," said a traveler in a railway restaurant, "did you say that I had twenty minutes to wait or that it was twenty minutes to eight?"

"I said naythur," answered the attendant. "I said yez had twenty minutes to ate, an' that's all yez had. Yer train's gone now!"—*Iowa Times.*

STREET CAR AMENITIES.

"TAKE my seat, madam."

"I thank you, sir, but I get off here, too."—*Chicago Tribune.*

TO PREVENT ACCIDENTS.

A RAILWAY official has waxed sarcastic as the result of the restrictions imposed by municipal ordinances upon railway traffic in Ohio towns and proposes the following rules:

"When a train is approaching a team the engineer must stop the train and cover the engine with a tarpaulin painted to correspond with the scenery.

"In case a horse gets scared at an engine, notwithstanding the scenic tarpaulin, the engineer will take the engine apart as rapidly as possible and conceal the parts on the river bank.

"On approaching a curve where he cannot command a view of the track ahead, the engineer must stop the train, blow the whistle,

ring the bell, fire a revolver, and send up three bombs at regular intervals of five minutes.

"In case a train comes up behind a pedestrian he shall affect deafness until the engineer calls him a hard name.

"All members of the police force shall give up Sunday to chasing trains.

"When a train approaches a crossing where the tracks are dusty, the engineer must slow down to one mile an hour and lay the dust with a hand-sprinkler."—*Exchange*.



AN OLD ONE BUT STILL GOOD.

A WOMAN on the train entering Grand Rapids asked the conductor how long the cars stopped at the Union Station.

He replied: "Madam, we stop just four minutes, from two to two, to two two."

The woman turned to her companion and said: "I wonder if he thinks he's the whistle on the engine?"—*Exchange*.



A DELICATE HINT.

TWO very cadaverous tramps looked in at the window of a railway station where an operator sat at his key.

"Say, pardner," one of them said in a very husky voice, "report a couple of empties goin' East."—*Harper's Weekly*.



KEEPING THEM NEAT.

"YOU know, Katie," said the proprietor of the railroad-station restaurant, "there is a great deal in having your pumpkin-pies look attractive."

"Yes, sir, I know it," replied the girl, "I have done everything I could. I have dusted off these pumpkin-pies every morning for the last eight days."—*Yonkers Statesman*.



FRENZIED FINANCE.

A MAN approached the window and asked for a ticket to Kansas City inquiring the price.

"Two twenty-five," said the agent.

The man dug down into a well-worn pocketbook and fished out a bill. It was a bank-note for two dollars. It was also all the money he had.

"How soon does this train go?" he inquired.

"In fifteen minutes," replied the agent.

The man hurried away. Soon he was back with three silver dollars, with which he bought a ticket.

"Pardon my curiosity," said the ticket-seller, "but how did you get that money? It isn't a loan, for I see you have disposed of the two-dollar bill."

"That's all right," said the man. "No, I didn't borrow. I went to a pawnshop and soaked the bill for a dollar and a half. Then as I started back here I met an old acquaintance, to whom I sold the pawn ticket for a dollar and a half. I then had three dollars and he has the pawn ticket for which the two-dollar bill stands as security."—*Kansas City Journal*.



COULD HAVE BEEN AVOIDED.

"GENTLEMEN of the jury," erupted the attorney for the plaintiff, addressing the twelve Arkansas peers who were sitting in judgment and on their respective shoulder-blades, in a damage suit against a grasping corporation for killing a cow.

"If the train had been running as slow as it should have been ran, if the bell had been rung as it ort to have been rang, or the whistle had been blown as it should have been blew, none of which was did, the cow would not have been injured when she was killed!"—*Santa Fe Employees' Magazine*.



A LONG EXAMINATION.

A RAILROAD doctor is telling a tale on one of his colleagues. There had been a hand-car accident, and three men were hurt. By the time Doc Alberts had two of them fixed up, he was tired, especially as he had been on "emergency work" for fourteen hours, and the weather was hot.

He began on Dennis Twohy. Dennis seemed just bruised, and sore all over; his chest hurt him, and the doctor listened carefully to his respiration. It seemed all right.

"Breathe deeply, Dennis, and count just one—two—three—and so on," ordered the weary doctor. The next he heard was Dennis still faithfully counting, "sivin thousan' an' wan, sivin thousan' an' two, sivin thousan'—"

Dr. Alberts said blandly, "Very good, very good, indeed. That will do."—*Santa Fe Employees' Magazine*.



ON THE EDITORIAL CARPET.

Here We Listen to the Hog Head, the Fireman, the Con., the Shack, the Nite Opr., and All the Other Boys.

OUR main line has been straightened—curves have been cut off and grades lowered—and we are going to run the August train on a thirty-miles-an-hour faster schedule. Perhaps you belong to the old order of venerable, conservative, and capable railroad men who have a well-founded prejudice against such fast going, but we have so much steam bubbling in our domes and popping out of our safety-valves in the August number that we are going to try for a record.

At any rate, we have got such a fine batch of new equipment that we cannot possibly help breaking every speed record that we have set up so laboriously in the past four years.

In the matter of fiction, we are running a regular hummer by our old friend, Emmet F. Harte, in which he swings us over the Valhalla division with our old pals Honk and Horace, with the high-keyed laughter whistle tied down and shrieking.

Robert Fulkerson Hoffman will be aboard with one of the most powerfully dramatic stories he has ever written. Mr. Hoffman is the keenest student of human nature as exhibited in the railroad man that we have ever known, and in this story he brings all his technical knowledge, both of the railroad and of story writing, into play.

Another old and tried friend, J. R. Stafford, will be among this galaxy of star engineers, and altogether we expect our fiction to haul the biggest party of readers that ever bought a ten-cent ticket on our line.

As a running mate for this crack fiction flier, we have got together a string of the best special articles we have ever coupled onto. There will be a story of Congressmen who have risen from the ranks of railroad men, that every ambitious railroad man ought to read for encouragement. There will be the first article of an entirely new series by Walter Gardner Seaver. Our old readers will need no introduction to Mr. Seaver. Some time ago he gave us some of the best yarns of actual railroad life that we could couple onto. He is a railroad man of tremendous experience, and the tales he tells bear all the shopmarks of skilled, veteran labor.

Another story that we expect to make a

big hit is by Arno Dosch, describing how a modern locomotive plant is run. It would seem to be an impossible feat for any plant to turn out an order of say, ninety locomotives to be delivered in sixty days, especially when one considers the widely different specifications to which various roads demand that their engines be built. But this is a feat which often has to be accomplished—or at least the equal of it, and in this article by Mr. Dosch you will learn how it is done.

Besides these there will be our usual friends, the observant J. E. Smith, who will tell more of the experiences of Schwartz in his efforts to purchase land from the farmers for the right-of-way of his company, and Robert H. Rogers, explaining to men who aspire to the manifold duties of the superintendent of motive power.

We shall also have a story of the Pinkertons, and an incident in the run of the first Black Diamond Express that will make a moving picture of speed look like a broken-down freight-car on the rip track. And, as usual, there are lots of things that we are not going to tell you about because we like to have a little “on you” boys in the way of eager anticipation.

Board's down for August!

MASTER MECHANICS MEET.

THE annual convention of the American Railway Master Mechanics' Association will be held June 15 to 22 at Atlantic City, New Jersey. In this connection it is recalled that this influential body is now close to the half-century mark in a career of usefulness practically incalculable. Starting in 1868, with six members, it has now nearly one thousand representatives from every railroad in the United States, Canada, and many foreign countries.

It is impossible to review in detail the work which has been accomplished in the history of this body. Unique in its devotion to the locomotive and its problems alone, it has investigated every conceivable subject connected with its design, maintenance, and operation, developing, criticising, and dis-

cussing it as it progressed from the diminutive sixteen-inch eight-wheel engine of 1860 to the magnificent articulated compounds of the present.

That this "great development has been singularly immune from widespread mistakes is due largely to these annual conventions and to the *personnel* of the association. Its membership is limited to those who have attained to the grade of master mechanic—men logically qualified to discuss the important papers which are read during the session, and this free interchange of ideas has resulted in securing the very best in design and shop practises.

It has effectually safeguarded against the repetition of costly mistakes, and this feature alone has no doubt saved millions which would have been fruitlessly expended.

That the value of the conventions is fully appreciated by railroad management everywhere is evinced by the encouragement which they extend to their master mechanics to attend them. It is a judicious investment because these master mechanics manage the largest collection of factories in the world devoted to one substantially uniform product—the repairing of locomotives.

Although it may challenge belief, this particular item alone costs the railroads over eighty million dollars every year. To keep this tremendous expenditure down is one of the great problems which the convention must solve for the general good.

Many of the master mechanics will present their own views in the discussions, while others will be content to follow without comment, but whether speakers or listeners, they will return home with the renewed energy and interest in their work which always results from communication with other workers in the same field, and with their opinions modified, new ideas conceived, and their experience broadened.

“CASEY JONES.”

WE are able to give you the words of the song “Casey Jones,” this month, in response to your many requests for this song. We wish it were in our power to furnish the music also, but the editor will gladly sing it to any railroad man who will call at this office during the editor's idle hours—between 1 and 8.30 A.M.

CASEY JONES.

BY T. LAWRENCE SEIBERT.

(Copyrighted, 1909, by Newton and Seibert, Los Angeles California.)

COME all you rounders if you want to hear
A story about a brave engineer.

Casey Jones was the rounder's name,
On a six, eight-wheeler, boys, he won his fame.

The caller called Casey at half past four—
Kissed his wife at the station door,
Mounted to the cabin with his orders in his hand,
And he took his farewell trip to that promised land.

CHORUS.

Casey Jones mounted to the cabin,
Casey Jones with his orders in his hand,
Casey Jones mounted to the cabin,
And he took his farewell trip to that promised land.

Put in your water, and shovel in your coal,
Put your head out the window, watch them drivers roll.
I'll run her till she leaves the rail,
'Cause I'm eight hours late with that Western mail.
He looked at his watch, and his watch was slow,
He looked at the water and the water was low;
He turned to the fireman, and he said:
“We're going to reach Frisco, but we'll all be dead.”

CHORUS.

Casey Jones going to reach Frisco,
Casey Jones, but we'll all be dead.
Casey Jones going to reach Frisco;
We're going to reach 'Frisco, but we'll all be dead.

Casey pulled up that Reno hill,
He tooted for the crossing with an awful shrill;
The switchmen knew by the engine's moans,
That the man at the throttle was Casey Jones.
He pulled up within two miles of the place,
Number Four staring him right in the face.
He turned to the fireman, said, “Boy, you'd better jump,
'Cause there's two locomotives that's a going to bump.”

CHORUS.

Casey Jones, two locomotives,
Casey Jones, that's a going to bump.
Casey Jones, two locomotives,
There's two locomotives that's a going to bump.

Casey Jones said just before he died:
“There's two more roads that I'd like to ride.”
Fireman said, “What could that be?”
“The Southern Pacific and the Santa Fe.”
Mrs. Jones sat on her bed a sighing,
Just received a message that Casey was dying,

Said, "Go to bed, children, and hush your crying,
 "'Cause you got another papa on the Salt Lake Line."

CHORUS.

Casey Jones! got another papa,
 Mrs. Casey Jones on that Salt Lake Line.
 Mrs. Casey Jones got another papa,
 And you've got another papa on that Salt Lake Line

THE STEAM ENGINE.

WE have had a great deal to say in recent issues about locomotive practise as it is commonly known, and we will have a good deal more to say on the subject in the future. In August we will publish an article on filling large locomotive orders, by Arno Dosch, and in September we will publish "Has the Locomotive Come to Stay?" by Robert H. Rogers. Other papers of equal importance and interest will follow.

Many of our readers have written us asking if we have not laid too much stress on the possibility of the locomotive holding its place in American railways. There seems to be a general opinion that electricity is destined to supersede the steam-engine. We are sincerely of the belief that it is a long way from becoming the dominant railroad power, and we cannot be led to believe that it will ever wholly take the place of the steam engine any more than the monorail will replace the double-rail track.

Our attention is attracted by an editorial on this particular subject in a recent issue of *The Railway and Engineering Review*. We give it herewith:

Not more than five or six years ago, the average layman felt reasonably certain that continued development of the steam locomotive would be both impracticable and unprofitable, and that electrification as a substitute motive-power in all classes of service was imminent.

Electrification has been found justifiable under a considerable number of conditions, but one at least, which had come to be regarded as its particular field, has in a very great measure been preempted almost before the electric locomotive was given a trial, that is, that branch of the service in which the Mallet compound locomotive is finding its greatest usefulness.

The opinion is almost universal at the present time, that present-day terminal and suburban service can be efficient and up-to-date only as it employs electricity as the propelling agent, and this idea, at least as it regards suburban traffic, the writer believes is about on a par with the notion held some few years ago, as above referred to. In contemplating

suburban service, as it is provided nowadays with steam locomotives, one cannot help being impressed with the general second-handness of the equipment that is assigned to this department of the work.

Both cars and engines are too often of a type that was common in through traffic as much as twenty or thirty years ago, and where a distinctive type of suburban engine is used at all, it, too, is one that has long since become antiquated. The ability to stop and start quickly is one of the most important features of this service, and why we are not getting the advantage of that feature is very evident.

As a type, the suburban locomotive has been practically neglected during the past fifteen years, and that it is subject to improvements that would make it proportionately as valuable to the service as are other improved types of locomotives in their respective classes of work, goes without saying.

In England there has been in use for some time a type of four-cylinder compound wherein the intercepting valve is controlled automatically by the movement of the reverse lever—this principle should prove valuable in providing a three or four cylinder compound suburban engine with the ability to accelerate rapidly with the least attention from the engineer.

With engines embodying this feature and light-weight cars, preferably vestibuled and without bulkheads, similar to those used in Subway and Elevated service, improved conditions as regards suburban traffic on steam lines would surely result.

"THE FAST FREIGHT ON THE SOO."

IN our April issue, we asked for the words of "The Fast Freight on the Soo," which is sometimes known as "An Ox Team Is Faster than a Freight on the Soo." Here she is, boys. Thank James H. Packard, operator and signalman C., St. P., M. and O. Ry. and Soo Line, at Cameron, Wisconsin, for the words:

FAST FREIGHT ON THE SOO.

BY S. E. FARNHAM.

We leave Minneapolis in the morning at seven,
 Get over to the shops; do well to leave there at eleven.
 We are ordered to haul all the loads in the yard,
 If the wheeling is good—all the same if it's hard.

We stall up at Wilson, and double the hill,
 Go back for the balance with a merry good will,
 Hoping once over the hill we can make up some time,
 But find orders at Marine, "haul every load you can find."

A preference load at Osceola, with orders
to go.
We double to Godfrey in a blizzard of snow.
Our sand is all out, and as hungry as can be,
And four loads for the East at Spur Number
Three.

What to do we don't know, only to double
again,
We must haul all the loads if there's a mile
in our train.
Run to Amery for water is the next thing
to do,
Go back for the balance, "fast freight on the
Soo."

Says the shack to the con, "Where you going
to chew?
I'm nearly played out, and you look weary,
too."
The con says faintly, "What's the matter
with you?
At Shaffner's, in Amery, the best place on
the Soo."

We arrived just in time to hear the dinner-
bell ring,
Went in, found a supper that was fit for a
king;
Mine host, fat and clever, the right man in
his place—
An ex-con himself, with a merry, round face.

Our supper revived us, and again we will try
To get over the road, we hardly know why,
But are firmly in hopes soon to get through,
Doubling high grades with fast freight—
Number Two.

Our coal is all out, another tank we must
take.
Drag our train up the hill, razoo Turtle Lake.
Three hours' hard switching to get the hind
load,
That had laid there a week from the Omaha
road.

The agent at Barron is a hustler, too,
We find him on duty at three thirty-two;
The way-freight we unload makes the poor
man so blue,
He goes in, writes friends, "never come to
the Soo."

We pass Brother Burton just about five,
He has hustled for the Soo till he's more
dead than alive;
So we let him off easy, has been up all night,
And give them a whirl for all that's in sight.

We pound them along, about six miles an
hour,
At Spur Number Ten we lose all our power.
Then double them over, to make the next
town,
And breakfast at eight with old Mother
Brown.

The shippers are kicking, and so is each crew,
Who run on the trains, or ship by the Soo.

Prosperity, we hope, to the Soo may befall;
'Twill be done when they go with what they
can haul.

Every one is disgusted, down-hearted, or
mad,
And the talk that I hear sure makes me feel
sad;
But I know they are facts, I acknowledge
them, too,
An ox-team is faster than time freight on
the Soo.

NEW NOVEL BY A RAILROAD MAN.

A POWERFUL story of the struggles of
a man who mistrusts his own courage
is "The Taming of Red Butte Western,"
by Francis Lynde, a former railroad
man. It tells how a young engineer, made
superintendent for that purpose, knocked
into shape a disorganized railroad, manned
by untrained semi-outlaws.

It is filled with critical, yet practical, prob-
lems in railroading; it tells of the obstacles
that may arise before a superintendent from
the pulls of inefficient men with the direc-
tors, and from pressure brought to bear by
strong and unscrupulous mining interests,
from the distaste for discipline of a body of
rebellious hands. It is full of adventure.
It moves forward with the rush and roar of
a fast express.

The author, Francis Lynde, is a railroad man
of wide experience. In the early eighties,
he held a position in the Denver office of the
Union Pacific, worked his way up quickly to
the place of head clerk, and then became
passenger-agent. Then, for a time, he served
in St. Paul, but later, moving to St. Joseph,
he became passenger-agent for a Missouri
road.

In these years he wrote considerable fic-
tion, and gradually gave up his railroad work
for writing. If you want a bully good rail-
road novel, get this one.

AN OLD-TIME POEM.

A KIND friend sends us the following
poem, "The Fireman's Story," from an
old copy of the *Waverly Magazine and Liter-
ary Repository*. It is an old-timer, indeed,
but it is full of the stuff that thrills—and that
never dies. We gladly add it to the great
galaxy of railroad classics that have graced
the columns of *The Carpet*:

THE FIREMAN'S STORY.

"A FRIGHTFUL face?" Wal, yes, yer correct.
That man on the engine thar'
Don't pack the handsomest countenance—
Every inch of it sportin' a scar;

But I tell you, pard, thar' ain't money enough
Piled up in the national banks
To buy that face—nor a single scar—
(No, I never indulges. Thanks.)

Yes, Jim is an old-time engineer,
An' a better one never war knowed!
Bin a runnin' year since the fust machine
War put on the Quincy road;
An' thar' ain't a galoot that pulls a plug
From Maine to the jumpin'-off place,
That knows more about the big iron hoss
Than him with the battered-up face.

"Git hurt in a mash-up?" No, 'twas done
In a sort o' legitimate way;
He got it a tryin' to save a gal
Up yar on the road last May.
I haven't much time fur to spin you the yarn,
Fur we pull out at two twenty-five—
Jist wait till I climb up an' toss in some coal
So to keep the old "go" alive.

Jim war pullin' the Burlin'ton passenger then,
Left Quincy half an hour late,
An' war skinnin' along purty lively so's not
To lay out number twenty-one freight.
The "go" war more than a 'hopin' 'em up,
An' a quiverin' in every nerve!
When all at once Jim yelled "Merciful
God!"
As she shoved her sharp nose round a
curve.

I jumped to his side o' the cab, an' ahead
'Bout two hundred paces or so,
Stood a gal on the track, her hands raised
aloft,
An' her face jist as white as the snow.
It seems she war so paralyzed with fright
That she couldn't move for'ard or back.
An' when Jim pulled the whistle she fainted
an' fell
Right down in a heap on the track.

I'll never forgit till the day o' my death
The look that come over Jim's face;
He throwed the old lever cl'ar back like a
shot,
So's to slacken the "go's" wild pace.
Then he let on the air-brakes as quick as a
flash,
An' out through the window he fled,
An' skinned 'long the runnin'-board cl'ar out
in front,
An' lay down on the pilot ahead.

Then, just as we reached whar the poor crea-
tur' lay,
He grabbed a tight hold of her arm,
An' raised her right up so's to throw her one
side
Out o' reach of all danger an' harm.
But, somehow, he slipped an' fell in with his
head
On the rail, as he throwed the young lass,
An' the pilot, in strikin' him, ground up his
face
In a frightful an' horrible mass!

As soon as I stopped I backed up the train
To the spot whar the poor fellow lay;
An' thar set the gal with his head in her lap,
An' a wipin' the warm blood away.
The tears rolled in torrents right down from
her eyes,
While she sobbed like her heart war all
broke—
I tell you, my friend, sich a sight as that 'ar
Would move the tough heart of an oak.

We put Jim aboard an' run back to town,
Whar for week arter week the boy lay
A hoverin' right in the shadder o' death,
An' thar gal by his bed every day.
But nursin' an' doctorin' brought him
around—
Kinder snatched him right outen the grave;
His face ain't so han'som' as 'twar, but his
heart
Remains jist as noble an' brave.

Of course thar's a sequel—as story books
say—
He fell dead in love, did this Jim;
But he hadn't the heart to ax her to have
Sich a battered up rooster as him.
She knowed how he felt, an' last New Year's
Day
War the fust day o' leap year, you know,
So she jist cornered Jim an' proposed on the
spot
An' you bet he didn't say no.

He's buildin' a house up thar on the hill,
An' has laid up a snug pile o' cash,
The weddin's to be on the first o' next May—
Jist a year from the day o' the mash—
The gal says he risked his dear life to save
hers,
An' she'll jist turn the tables about
An' give him the life that he saved—thar's
the bell;
Good day, sir, we're goin' to pull out.



IT IS "GERRIT" FORT.

IN our May issue, we published a short arti-
cle telling of the remarkable rise of Mr.
Gerrit Fort, G. P. A. of the New York Cen-
tral lines. In an unguarded moment—we
might as well blame it to Halley's comet as
anything else—we spelled Mr. Fort's name
"Jerrit." Whether his first name begins
with a "J" or a "G," we are sure it makes
no difference in his keen ability to manage
the big department of the big railroad which
is so fortunate as to have his services.

History is full of personalities whose first
names are quite unimportant. What, for in-
stance, was the handle to Æsop's name (not
that Mr. Fort is addicted to spreading
fables)? "Has any one here seen Kelly?"
Which Kelly? What did Chopin's mother
call him when he was home from his one-
night stands? The late William Shake-
speare, a writing-man of no mean propor-

tions, asked the question, "What's in a name?" There has even been a query as to what has become of "Mr. Sweeney of the end book?"

But there is no doubt about Fort of the New York Central. We know where he stands, and so does the traveling public—and we are for him.



BOUQUETS AND KICKS.

AMONG our bouquets this month we have another kick. One of our readers tells us that there is something that he does not like about THE RAILROAD MAN'S MAGAZINE, in spite of the fact that he starts off by saying that he thinks it's one of the best magazines published. And, sad to say, although we would like very much to make things right in this particular case, we are at present unable to remedy the difficulty.

This particular kicker says that instead of pulling out onto the main line once a month, we ought to double up on our schedule and put on another train. Honestly, we'd like to, but the right-of-way is pretty badly crowded and we can't get orders for a clear track any oftener to save our lives.

Besides, we're working a pretty full head of steam as it is, and are so busy making up our electric-lighted, solid-vestibuled, that if we tried to get out a special in between we might lose so much time that the limited would not get out on time.

However, kicks of this sort please us almost as much as the bouquets we receive, and we're too proud of both to keep them tucked away in our locker, so here are a few on exhibition to show that we've got some friends left and that they're not afraid to stand up for us:

I have been reading THE RAILROAD MAN'S MAGAZINE now for a long time, and I think it is one of the best magazines published. The only feature I don't like about the magazine is that it don't come around soon enough.

It should be published twice a month at least. I especially like the Light of the Lantern.—T. J. M., Havre, Montana.

I am a regular reader of your magazine, and that you may know how much I appreciate it, I must tell you that it is a common occurrence for me to be warned by the engineer that the steam is down, when I am reading my little red-covered RAILROAD MAN'S MAGAZINE. If it came out twice a month, I guess he would never have any steam. There is a saying on our road, the Central Railroad of New Jersey, that if it is not in THE RAILROAD MAN'S MAGAZINE, it's no good.—W. Z. B., Springfield, New Jersey.

I have been a reader of your magazine for the last few years, and take pleasure in tell-

ing you I admire it, whether it runs hot or not. I can hardly wait from one month to the next for its arrival.—J. R. H., Altoona, Pennsylvania.

I do not know whether you will want a letter from me or not, but I think every one who has read THE RAILROAD MAN'S MAGAZINE sure has a "put in," and should give the magazine a boost. I have been reading it ever since it has first started, and I think that it is the best magazine on the market. The stories are the best that I have read in any book.—G. H. M., Honolulu, H. T.

I have been a constant reader of THE RAILROAD MAN'S MAGAZINE for some time. I can hardly wait till the time comes to get it. I am hard to please in reading matter, but THE RAILROAD MAN'S MAGAZINE certainly pleases me. I sometimes sit up till the roosters crow in the morning, reading it.—P. McL., Detroit, Michigan.

I am not a railroad man, but am a watchmaker, and like to see the wheels go round. For the past two years THE RAILROAD MAN'S MAGAZINE has helped wonderfully to oil the bearings of the wheels of time for me. I never miss an issue, and have taken quite an interest in its problems.—L. C. M., Golden-dale, Washington.

I take eight magazines besides THE RAILROAD MAN'S MAGAZINE, but I find it the best of them all.—C. R. D., Alford, Pennsylvania.

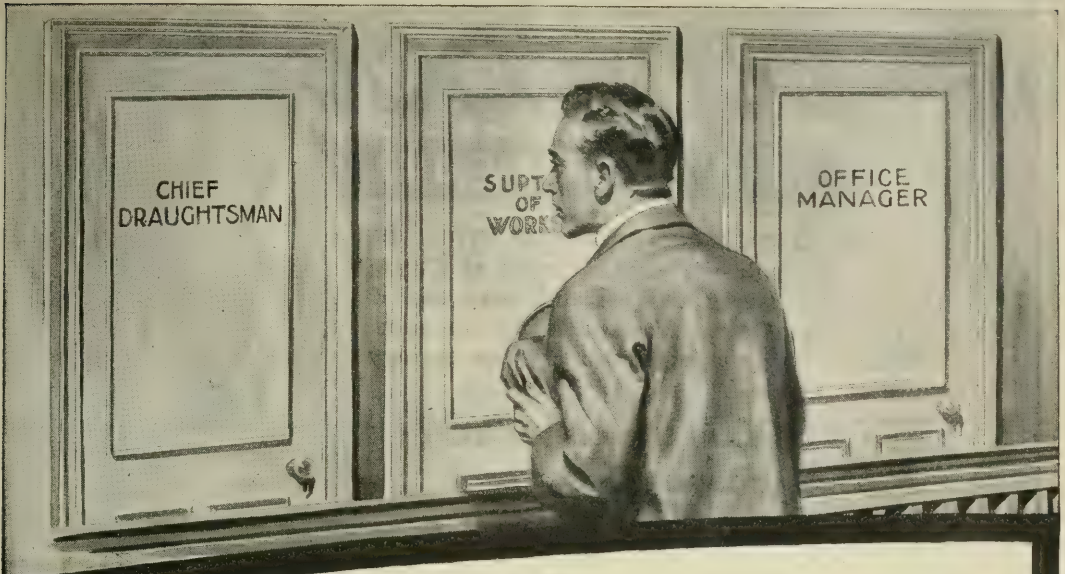
I have been reading THE RAILROAD MAN'S MAGAZINE since copy number one, and have not failed to get every copy since it was first printed. I am greatly interested in the stories and poems.—B. C. M., Garfield, Kansas.

I have never seen any letter of praise or a kick from this part of the world, so will send in my bouquet. I have been taking THE RAILROAD MAN'S MAGAZINE for over a year. Once a person starts to read the magazine, it becomes a habit that one won't quit. My copies are read by three families. Then, if there is anything left of the book, I hand it over to the telegrapher at Reed's Spring. Give us a few more "Tragic Train Orders," some more of Horace Herr's and Emmet Harte's pen pictures, and some more slang stories like "The Excitement Special." The serials are all good. The magazine is an education to any one who will read its articles.—L. E., Garber, Missouri.



AMONG THE MISSING.

FE. HEDGER, a railroad man formerly employed by the Illinois Central Railroad, is reported among the missing. Information regarding his whereabouts is requested by N. A. Hedger, White Cloud, Michigan.



What Position Do YOU Want?

Is there some position "higher up" that you have your eyes on, but which requires *special training* to secure and *hold*? Is there some line of work that appeals to you more strongly than the one in which you are now engaged, but which calls for *expert knowledge*?

Summed up—is lack of training keeping you back? If so, the International Correspondence Schools have a way by which you can advance—a way that is within your means—that doesn't rob you of your working time—that doesn't necessitate your leaving home—that doesn't mean giving up the little pleasures of life.

Mark the attached coupon and learn *how the I. C. S. can advance you*. Marking it costs you nothing and yet brings you information and advice that *will help you shape your career*—information and advice that you cannot get elsewhere at any price.

A Better Position For YOU

Mark the coupon and learn how the I. C. S. can change you from a dissatisfied to a satisfied man—how it can fit you *for your chosen occupation*—raise your salary—make you successful.

The I. C. S. can do all this. This is proved by the 300 letters received *every month* from students who **VOLUNTARILY** report better salaries and positions *as the direct result of I. C. S. help*. During April the number was 338.

Your advancement rests with YOU. The first step forward is the marking of the coupon. The I. C. S. method is adapted to meet *your particular needs and means*.

"Better Position" Coupon

INTERNATIONAL CORRESPONDENCE SCHOOLS,
Box 1003, SCRANTON, PA.

Please explain, without further obligation on my part, how I can qualify for the position before which I have marked X.

General Foreman
R. R. Shop Foreman
R. R. Travelling Eng.
R. R. Trav'g Fireman
Locomotive Engineer
Air-Brake Inspector
Air-Brake Repairman
Mechanical Engineer
Mechanical Draftsman
R. R. Construction Eng.
Surveyor
Civil Engineer
Banking

Electrical Engineer
Machine Designer
Electrician
Mining Engineer
Mine Foreman
Foreman Machinist
Chemist
Assayer
Architect
Book keeper
Stenographer
Ad. Writer
Automobile Operator
Concrete Engineer

Name _____
Employed by _____ R. R. _____
Employed as _____
Street and No. _____
City _____ State _____

Keepkool

TRADE MARK

UNDERWEAR

LET Summer breezes fan your body through the myriad pores of *Keepkool* Underwear. Enjoy the grateful silky feel of the sheer, but strong, *Keepkool* fabric—the sense of freedom and comfort given by the springy texture of *Keepkool*.

KEEPKOOL is the only Elastic Ribbed, Porous Underwear

Made in knee or ankle length drawers, short or long sleeves and athletic shirts.

Ask your dealer for *Keepkool* Underwear.

Men's Separate 50c Boys' Separate 25c
Men's Union Suits \$1.00 Boys' Union Suits 50c

Catalog and sample of fabric on request.

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Dept. H, Albany, N. Y.



Dustless Housecleaning

Terrific Air Suction. Rushing, whirling, sucking air cleans carpets, rugs, matings on floor, without sweeping or dusting. No motors, no electricity. Constant suction. New Home Vacuum Cleaner. New principle. One person operates. Child or weak woman can handle easily. Weighs nine pounds. Simple—powerful—effective. It's the constant suction that does it—terrific, irresistible, sure. Sucking, drawing—gathering up into itself dirt—dust—grit—germs and grime from the very warp and fibre of carpets, rugs, matings. Does same kind of work as high priced machines. Price so low all may enjoy its benefits. Unlike anything you've seen or heard of. Makes carpets look like new. Better than if taken up and beaten. Raises no dust, so no dusting required. Does what days of sweeping and pounding could never do. Mrs. Jane Shully, Neb., writes: "You don't claim half enough. I wouldn't part with my cleaner for any price, if I couldn't get another. My ten year old girl operates mine easily and enjoys it."

SAVES MONEY, STRENGTH, TIME and HEALTH. YOU NEED IT.

MAKES DUSTLESS HOMES

You Can Abandon Brooms, Brushes, and Dust Cloths.

They don't clean your rugs and carpets. Brooms and sweepers fill the air with clouds of unhealthy disease-laden dust and germs and remove only surface dirt. New Home Vacuum Cleaner sucks up not only surface dirt, but all dirt, dust, grit and germs from in and beneath. Disturbance and upheaval of house-cleaning unnecessary. Stop short! Put drudgery behind you—leisure and health before. In New Home Vacuum Cleaner lies your salvation from household slavery. Adopt the new—easy—modern—sanitary—scientific way of cleaning.

Price \$8.50. Sent Anywhere. Not Sold in Stores.

Think of it! Not \$100, \$50, nor even \$25—only \$8.50. Think what a small price for such a wonderful invention. What's \$8.50 compared to a neat, clean home; when you can banish forever the drudgery of sweeping—cleaning—dusting; when there will be no more carpets and rugs to take up and beat. We guarantee New Home Vacuum Cleaner to be just as represented or your money back. Comes set up ready for use. You will be delighted—enraptured with it. Mrs. Henry Deller, E. I. "I must thank you for telling me of your wonderful cleaner. What a God send it is to women. I have not felt so rested in years. Work now easy. Plenty of spare time. Don't see how you can sell it so cheap." Don't wait; don't hesitate. Order now. You risk nothing. To try a New Home Cleaner means to want it—then to keep it. Every cleaner tested before shipping—guaranteed as represented or money refunded. Send for a cleaner now.

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Women excited—eager to buy as soon as they see how beautifully it works. No trouble to make sales—no experience required. Just demonstrate—that's all. Shown in three minutes—sold in five. C. E. Goff, Mo., says: "Sold five cleaners last Saturday; my first attempt. W. H. Morgan, Pa., "Sold 45 cleaners in 25 hours." It's immense. So simple—so cheap. Yet so good, all buy. YOU make money. YOU get these big profits. Write a card now. Get our liberal proposition.

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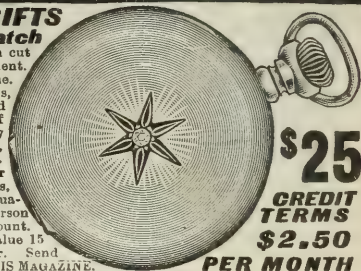
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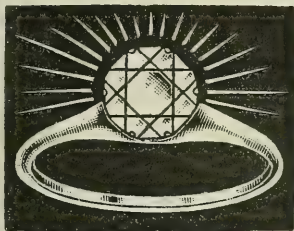
like to own or present as a gift to a loved one: it will be sent on approval to your home, place of business, or express office, without any obligation whatever on your part. If satisfactory in every way, pay one-fifth down and keep it, balance in eight equal monthly amounts. If not satisfactory, return it. We pay all charges and take all risks. Our prices are the lowest. Our terms are the easiest. An Account with Us is a confidential matter. Our customers use their charge accounts with us year after year, finding them a great convenience at such times as anniversaries, weddings, birthdays, graduations, etc. Any honest person may open a charge account. Diamonds increase in value 15 to 20 per cent each year. Send for free copy of the LOFTIS MAGAZINE.



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**LOOK AS WELL
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COST 80% LESS**
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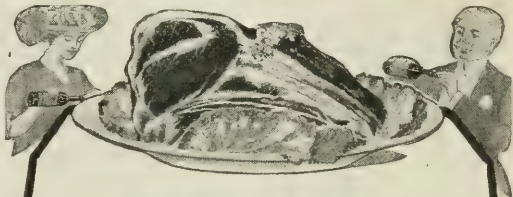
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We furnish the highest grade bicycles it is possible to make at one small profit above the actual factory cost. You save \$10 to \$25 middlemen's profits by buying direct of us and have the manufacturer's guarantee behind your bicycle. **DO NOT BUY** a bicycle or a pair of tires from anyone at any price until you receive our catalogues and learn our unheard of factory prices and remarkable special offer.

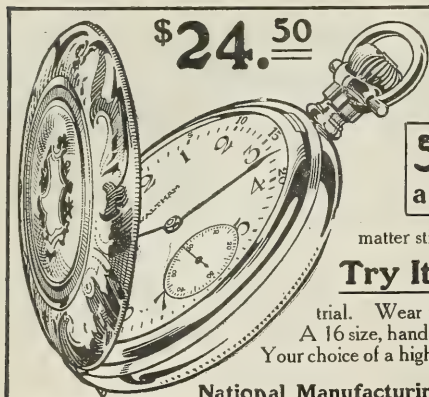
YOU WILL BE ASTONISHED

when you receive our beautiful catalogue and study our superb models at the wonderful low prices we can make you. We sell the highest grade bicycles at lower prices than any other factory. We are satisfied with \$1.00 profit above factory cost. **BICYCLE DEALERS**, you can sell our bicycles under your own name plate at double our prices. Orders filled the day received.

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Chauffeurs, Automobile Salesmen, Demonstrators and Repairmen are in big demand everywhere. The field is new, work pleasant, and anyone can learn. We teach you in 10 weeks of study during spare time to become thoroughly efficient. Our course of instruction by mail is simple, practical, and very interesting. Besides, we assist you to secure a good position.

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The Original Automobile School

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All these are first-class merchandise, taken from our regular stock. The shirt and tie are of latest fashion; the links and cuff buttons gold filled. Go to any other retail store in the country and the same outfit will cost \$3, but we make a price of \$1.50 in order to introduce you to New York haberdashery at a price within everyone's reach. We pay all delivery charges.

COMBINATION HABERDASHERY CO.
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Your salary check on Saturday evening might as well be several times more than it is now.

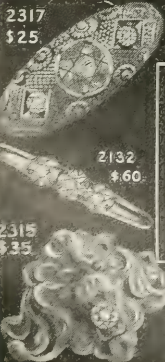
If you will lend us one hour of your spare time each day for about twelve weeks, we can prepare you as an automobile salesman, demonstrator or chauffeur. We assist our graduates to positions with wealthy owners and manufacturers,—people who want high-class, competent men and are able to pay well for them.

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The Largest School of Expert Auto Engineering in U. S.

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2306 \$60

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It is made of fine Burley. Only selected leaves are used. Carefully mellowed and cured, they make an extremely pleasant smoke. One that you will enjoy.

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**MEISTER
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30 Days Free Trial
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This Parlor Grand Meister is remarkable for its full rich tone and the beautiful style of its case which is of genuine mahogany, double veneered throughout. Modern improved construction and finest of materials used. Try it a month without a penny of cost and get your own ideas of its mellow tone and artistic appearance.

If it isn't the best piano you ever saw or heard at the price, we will send for it and pay the return freight.

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Munsey's Magazine	\$2.50	Special Combination Rate \$5.50
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LIVE AGENTS WANTED—Hustlers to handle our attractive combination package of soap and toilet articles—\$1.25 premium with every 50c sale. Our Texas agent sold 100 boxes in one and a half days—profit \$35.00. Write today for illustrated catalogue and profit-sharing plan. DAVIS SOAP COMPANY, 46 Union Park Ct., Chicago.

WANTED—Wide-awake general agents to organize sales force for new and winning bath invention. Combines Shower, Shampoo and Massage. Transforms any bathroom. Supplies modern bathing facilities for country homes. Extensively advertised. Irresistible selling proposition. Everybody wants one. Agents selling nine out of ten people. Alfred Reno, Miss., writes: "Samples arrived this morning, sold \$25.00 worth this afternoon." No competition, we protect territory. Sales-compelling samples furnished. Write today for selling plan. THE PROGRESS COMPANY, 250 Monroe St., Chicago, Ill.

\$25 WEEKLY AND EXPENSES to men and women to collect names, distribute samples and advertise. Steady work. C. H. EMERY, C13, Chicago, Ill.

Agents, male and female, can make \$10 to \$15 selling my imported French lawn waist patterns and Bonnaz Embroidered Princess patterns. Prices and particulars mailed on request. J. GLECK, 621 B'way, New York.

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AGENTS earn big money weekly selling our new styles embroidered waist patterns, princess dresses, petticoats, art linens, drawn work, silk shawls and scarfs, etc. Catalogue free. National Importing Co., Desk 21, 699 B'way, N. Y.

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LOCAL REPRESENTATIVE WANTED — Splendid income assured right man to act as our representative after learning our business thoroughly by mail. Former experience unnecessary. All we require is honesty, ability, ambition and willingness to learn a lucrative business. No soliciting or traveling. This is an exceptional opportunity for a man in your section to get into a big-paying business without capital and become independent for life. Write at once for full particulars. Address E. R. Marden, President, THE NATIONAL CO-OPERATIVE REAL ESTATE Co., Suite 550 Marden Building, Washington, D. C.

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YOUR LOOSE TEETH can be made solid again, the recession of the gum checked. "Umerja Forhan's" is a Specialist's Cure for soft, bleeding, suppurating or pus discharging gums. Mailed for \$2.00. Can be purchased only through us. This is what is used in Dr. R. J. Forhan's practice for the cure of this disease, for which his minimum fee is \$100.00. **US-MER-JA CHEMICAL COMPANY, Suite 908 Wills Bldg., 256 5th Ave., New York City.**

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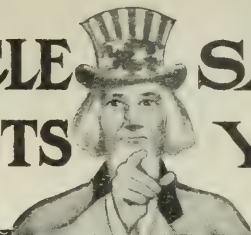
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TELEGRAPHY, both Morse and Wireless, taught quickly. R. R. train wire and complete wireless station in school. Big demand for operators. Living expenses earned. Correspondence courses if desired. Catalogs free. **DODGE'S INSTITUTE, 36th St., Valparaiso, Ind. Established 1874.**

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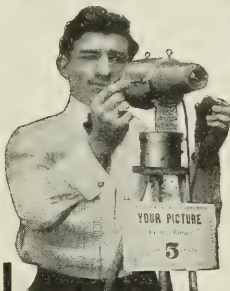
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This is what hundreds of our operators are now earning. **Why not you?**

The Wonder Cannon Camera

is the biggest money-making device on the market, for carnivals, picnics, fairs and street parades, on street corners, and in fact everywhere people gather.

The Cannon Camera makes 8 finished photo buttons in one minute, ready to wear.

Positively No Experience Required

Complete instructions go with every outfit and are simple enough to enable you to learn the business in 30 minutes.

Only \$25 needed to start this big, pleasant, profitable business. This pays for complete outfit which consists of Wonder Cannon Camera, Tripod and supplies for making 400 finished photo buttons that sell for 10c and 15c each—cost 2c each. Selling the finished button picture at only 10c nets \$40.00. This leaves a good profit above the original investment besides the ownership of the Cannon Camera and Tripod.

Additional Button Plates

\$1.00 per hundred

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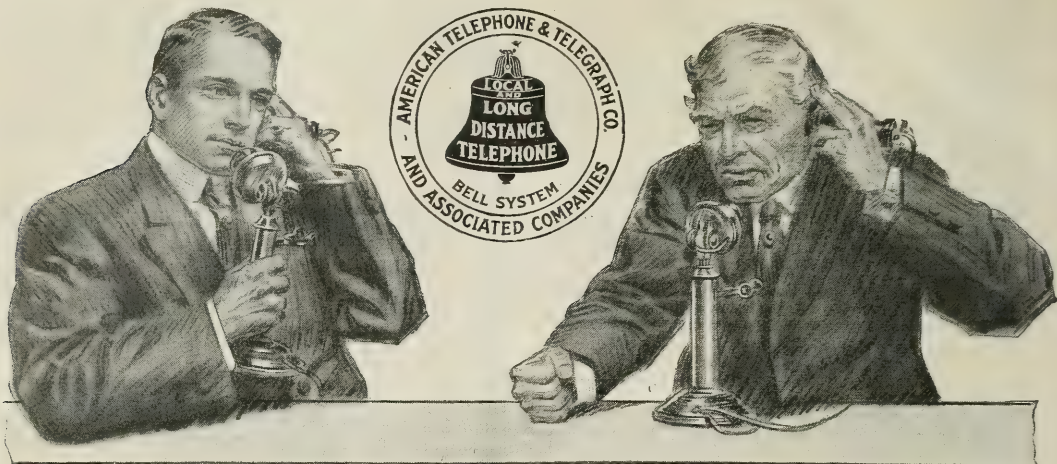
\$1.25 per gross

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Dr. Jekyll *and* Mr. Hyde At the Telephone

Courteous and considerate co-operation is as essential at the telephone as in the office or home.

In every use of the telephone system, three human factors are brought into action—one at each end, one or both anxious and probably impatient, another at the central office, an expert, at least as intelligent and reliable as the best stenographers or bookkeepers.

For the time being, this central office factor is the personal servant of the other two and

is entitled to the same consideration that is naturally given to their regular employees.

Perfect service depends upon the perfect co-ordinate action of all three factors—any one failing, the service suffers. This should never be forgotten.

All attempts to entirely eliminate the personal factor at the central office, to make it a machine, have been unsuccessful. There are times when no mechanism, however ingenious, can take the place of human intelligence.

The marvelous growth of the Bell System has made the use of the telephone universal and the misuse a matter of public concern. Discourtesy on the part of telephone users is only possible when they fail to realize the efficiency of the service. It will cease when they talk over the telephone as they would talk face to face.

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One Policy,

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Universal Service.

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has no impurities or adulterations to hide. That's why it is white—undyed. It is made from edible products, and has a clean, delicate, refreshing smell; many other soaps have a strong, greasy, soapy, and oft-times rancid odor. Fairy Soap—the handy, floating, oval cake, is the best soap you can buy—yet its price is but 5c.

THE N. K. FAIRBANK COMPANY
CHICAGO.





Mother, Guess You'll
Have to open the other
Package of

HENRY HUTT

Kellogg's

TOASTED CORN FLAKES

The Kind with the Flavor —
Made of the Best White Corn

THE GENUINE ALWAYS HAS THIS SIGNATURE

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KELLOGG TOASTED CORN FLAKE CO. Battle Creek, Mich.



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PRICE 10 CENTS

BY THE YEAR \$100

THE RAILROAD MAN'S MAGAZINE

RECEIVED
AUG 10 1910
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AUGUST

THE FRANK A. MUNSEY COMPANY NEW YORK AND LONDON



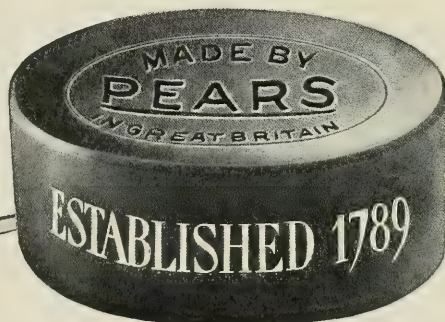
About Wrinkles

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The OLIVER
Typewriter

The Standard Visible Writer

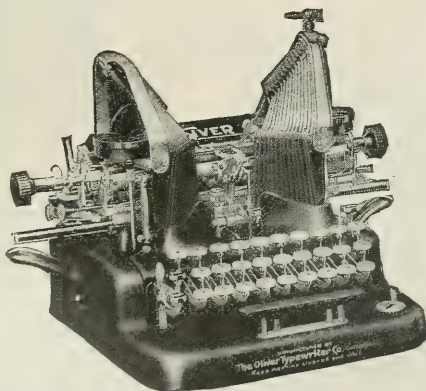
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(35)

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THE RAILROAD MAN'S MAGAZINE

Vol. XII.

AUGUST, 1910.

No. 3.

Railroad Men Who Are Members of Congress.

Among the Leading Law-Makers of the Nation Are Men Who Began with
the Section-Gang and the Roundhouse Crew, Whose Early
Struggles Led Them to Success.

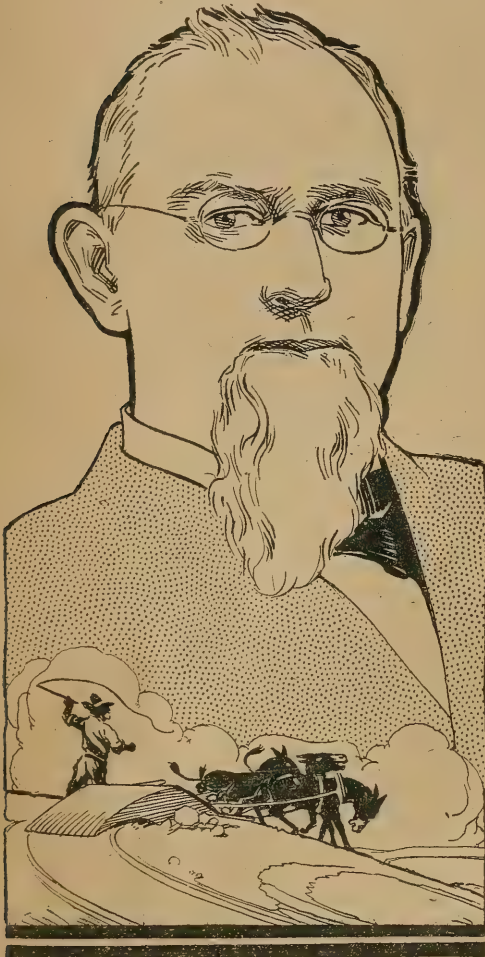
WHEN a man starts in life as a tallow-pot, and looks forward to the time when he will be elected to either the Senate or Congress of the United States, there is a gaping chasm between the two extremes. Yet we publish in this issue of THE RAILROAD MAN'S MAGAZINE the personal stories of some of the most noted men now in our Congress who began life in some of the lowliest positions known to railroading and at a time when the work was not so well advanced nor promotion so certain as it is to-day.

Some of these personal narratives read more like romance than truth. They tell of hardships and of those seemingly insuperable obstacles that block the way of all men who are not born a tag on a money-bag, but must work their way, by their own efforts, to the top.

"Have you ever been a railroad man?" we asked these various men now representing us in Washington, and the invariable reply was, "Have I ever been a railroad man?" accompanied by a smile and a far-away look, as if the speaker was taking himself back to the days that were dear to him—days that he can never forget.

So here, boys, are the true stories of Senator Carter of Montana, Senator Cummins of Iowa, Senator Warren of Wyoming, Senator Shively of Indiana, Senator Perkins of California, Senator Lorimer of Illinois, Senator Nixon of Nevada, Congressman Martin of Colorado, Congressman Anderson of Ohio, Congressman Norris of Nebraska, Congressman Murphy of Missouri, and Congressman Cassidy of Ohio, all of whom are proud of the fact that they are ex-railroad men. We are proud, indeed, to be able to record such a list. There is something about the rough-and-ready life along the right-of-way that puts stamina into men who have undergone its seasoning influence, and makes them

pay little heed to the smaller trials and tribulations that so often prove stumbling-blocks on the uneven road to success. Railroads, from the beginning, have proved poor places for quitters, and the men who have climbed from the ranks and finally won their way to executive seats at the nation's capital are frank in admitting that they have gained much from association with their fellow workmen, and were in the habit of taking hard knocks with a smile.



SENATOR CARTER.

Drawn from a photograph copyrighted by Harris & Ewing.

BEGAN AS FIREMAN.

By Thomas Henry Carter, United States Senator from Montana.

MY railroad career was not of much importance, or of long duration. I began by driving a mule team on the grade of a new road extending west from Clinton, Illinois, and, later, on the Illinois and South-eastern Railroad.

Following this, I drove a team hauling stone, timber, etc., for the roundhouse and small machine-shop built at Pana. I had fully made up my mind that railroading should be my life's work, but fate and the master mechanic willed it otherwise. I never got any higher in railroad work, although I had strong ambition to become a locomotive fireman.

While plowing corn near the Illinois Central tracks, I envied the lot of the men on the passing engines, who seemed to be stirring up a cool breeze and having a good time. I thought it all out while working on the farm, and finally decided that I would be much happier railroading—then I could see the world.

I even concluded that I would like to begin my career as fireman. In my imagination, I lived over the joys that were to come when, with the engineer, I would be flying over the miles of Wild West prairies, the glare of the hot embers scorching my cheek as I fed the engine with coal, and then the wind of the fresh outdoors cooling my face as we flew over the rails.

Oh! it would be life, real and earnest—and one day, when a shower made the ground too wet to plow, I laid off and walked to the roundhouse in the village to make my application.

I was bent on securing a position as fireman, but the formidable appearance of the master mechanic, and the distant attitude of every one about the place, reduced my self-confidence to such a degree that I finally concluded it would be safer to ask for a job wiping engines.

With this reduced purpose in mind, I stayed about the place for half an hour or so while the master mechanic talked with some important-looking persons.

Finally, when the conversation was ended, he stepped aside to look over some detached work, and I accosted him, and with much timidity, many misgivings, and a husky voice, said:

"Mister, I want a job, wiping."

He turned, looked me over from head to

foot, and walked away without making any reply.

This apparently scornful inspection made me conscious of my lack of style. The truth is, my clothes were very meager, consisting of a rough straw hat, check shirt, and blue overalls rolled up pretty well to the knees to keep them out of the mud.

I was barefooted, freckle-faced, and bashful. The first blush of confusion over, I became deeply conscious, humiliated, and angry, but I could do nothing save suffer and walk away.

Mr. Ladd, the master mechanic, was undoubtedly a capable man in his line of business, but he had the brusque manner of the old-time railroader.

He subsequently went to Brazil to take employment as master mechanic of the government railway system, and never returned to this country.

He did not mean to treat me with contempt, nor to hurt my wounded feelings—but he did both. He also put an end to my quest for railroad employment. I never made another trial in that direction.

Mr. Ladd unconsciously did me a great service, for I have ever since treated people with the utmost consideration. We cannot always justly measure the motives of men, and we often judge too harshly; but I have always felt inclined to lend a sympathetic ear to the request of a boy, even if I did not grant his petition.

A boy is supersensitive, particularly during the period of doubtful status when he is neither a man nor a boy. Then he feels awkward, ungainly, and out of place. He lacks the experience which leads to a philosophical view, and every slight inflicts pain and humiliation.



THE HAPPINESS OF HARDSHIP.

By Francis E. Warren, United States Senator from Wyoming.

EARLY in the spring of 1867, I was foreman of the tie-gang of the advance party of men building the Rock Island from Des Moines, Iowa, westward.

There were from two hundred and fifty to five hundred men working in the gang, and, after building out twenty miles to the Raccoon River, I left the business on a call west to my present home, Cheyenne, Wyoming, and took charge of a place made vacant by the illness of a man who had to travel for a year.

Years after that I was made a member of the board of directors, and later was advanced to the position of president of the Cheyenne and Northern Railroad, running one hundred odd miles northward from Cheyenne, which afterward became a branch of the Union Pacific.

Railroading in those pioneer days afforded few comforts, but more unexpected compen-



SENATOR WARREN.

Drawn from a photograph.

sations in the way of amusements than you find to-day, but I can truthfully say that I recall with pleasure the real happiness that we got out of the hardships.

I have an abiding belief that railroading is an excellent vocation for a wide-awake and ambitious American boy.

I consider any young man lucky to-day who is able to secure employment with a railroad.



CONGRESSMAN MARTIN.

Drawn from a photograph by G. V. Buck, Washington, D. C.

FACING DANGER AND DEATH.

By John A. Martin, Representative from Colorado.

I WAS born and brought up on the right-of-way. At home, I've got tucked away the overalls and jumper that constituted my uniform as a tallow-pot. I am the first member of the Brotherhood of Locomotive Firemen ever elected to Congress, and I am just as proud of my membership in the Brotherhood to-day as when I fired an engine.

Friends have frequently remarked to me, that if they had my railroad story to tell, they would never tire in telling it. My father was a railroad man, and I have two brothers who are locomotive engineers. For four years I worked for the Santa Fe, in Colorado, as a fireman, having been promoted to that posi-

tion from engine-wiper. Prior to that time, I had had several years' experience in grading and track-laying, and, as a boy, helped to build the Colorado Midland, the first standard-gage railroad across the Rocky Mountains, in Colorado. Since I became a grown man, I worked a year on the section at \$1.10 per day, but my railroad life terminated in 1894, as a result of the Pullman strike.

There is as much difference between riding on a locomotive and in a passenger-coach as there is between a saddle horse and an automobile. You never lose the sense of exhilaration caused by the motion of a good engine traveling at high speed. You feel the vibration, the throb, and the life of her.

I have also been in some accidents. The first, on the Colorado Midland, was a disastrous one. I was riding down the mountain on a work-train engine drawing two cars, on which were three hundred men.

Suddenly the track slipped off the dump, and I can still see the terrible scene. A half-dozen of the men were killed and fully twenty crippled for life. The engine was No. 13, and the accident occurred on a Friday, September 13.

As I got out of it in fairly good shape, although not exactly with a whole skin, I have since claimed that thirteen was my lucky number. I am not a bit superstitious about thirteen.

Everybody has read, more or less, about railroad accidents in which it was said the engine and trainmen had warnings or premonitions of impending disaster. I believe there is very little superstition in my make-up, and yet, for eighteen years, I have carried the firm conviction that I escaped death in a collision as the result of some such forewarning.

It was a winter night I had forebodings of danger before we started. I was firing a fast passenger-train which was several hours late. We were following an ore-train which had orders to run ahead of us until overtaken. We overtook her, backing in on a curve side-track with no flag out, plunging right into the middle of the freight-train at a speed of forty miles an hour.

Glimpsing out of the left cab-window, I saw a red light ahead of us, and, with a shout to the engineer, I sprang to the right gangway and out into the darkness.

Ninety-nine times out of a hundred, I would have looked out of the left gangway, which was on the inside of the curve, in order that I might see ahead, but as the result of my nervous condition, or whatever

you call it, I accurately apprehended the exact condition, and made the move that saved my life.

Had I even thrust my head out of the left gangway, I never would have drawn it back, as the engine struck on that side.

In making this trip, I relieved another man who confessed afterward that he laid off because of a like premonition. He said to me:

"When you climbed up in the cab to relieve me, I had a hunch that I was getting out of it and you into it."

I told him the same thing.

At that time, I was only firing extra and had been on this engine several trips. The last trip in, before the accident, the regular man reported. The run did not go out until about 9 P.M., arriving in Denver about 5 A.M.

When I went over to the roundhouse to clean the engine and get her ready for the trip, I scented danger ahead, and was relieved to see the regular man marked up for her.

Notwithstanding this, I continued more or less uneasy all day, and was sitting on my bed about 8.30 P.M., when the train which this engine would take out, whistled in. I nearly jumped with delight at the thought of not going out on her, but my relief was short-lived, for in about fifteen minutes the call-boy knocked at the door and said that the train was being held an hour, and that the regular man had decided to lay off.

The danger really was ahead of me all the time, which explains why I did not feel relieved even after the other fellow had reported. You can take it from me, not only as the result of my own experience, but from lifelong association with railroad men, that many of them go knowingly into danger and death.

I know personally of cases where railroad men's wives have begged them not to go out when they, too, felt that they should not go. Yet they went, never to return alive.



HIS MODEST CHRONICLE.

By Benjamin F. Shively, United States Senator from Indiana.

MY railroad experience was really too short to chronicle. I worked only at the foundation, grading road-beds in St. Joseph County, Indiana.

I did this work to tide me over a rough place while studying and preparing to be a teacher; but my experience was too limited to consider myself these days in the light of a railroad man.



SENATOR LORIMER.

Drawn from a photograph by Monfort, Chicago.

HOW I STALLED A STRIKE.

By William Lorimer, United States Senator from Illinois.

THIRTY-NINE years ago I came to Chicago; and the first job I held in the line of railroading was on a street railroad. I began as conductor, and I want to say that it is the best school in the world for studying human nature.

You can learn more about people and their grievances on the end of a street-car than in any other way. In those days we had to work from sixteen to eighteen hours a day, and were paid one-half as much money as the men are now paid who work only twelve hours a day.

I was deeply interested in the social life of the railway orders, and organized the Street Railway Men's Benevolent Association.

Our association was really a union, to look after the general welfare and to settle any disputes or difficulties that might arise between the members and the company.

We were a flamboyant lot of boys when any one of us was unjustly treated, and it took a lot of persuasion to establish peace in the club or to quiet the spirit of indignation over such a procedure on the part of the company.

At midnight I used to call at the association headquarters, and enjoyed talking over the news with the boys who had finished their run for the day. Our brotherhood was, in a way, what the union is to-day. The least excuse against the company was sufficient to enlist the sympathies of the agitators.

I recollect one member of the association who had been discharged because his accounts did not tally. The men were all up in arms to fight his battles, and determined to demand that the company reinstate him.

I also remembered a little experience that I had had with the same conductor. It is impossible, after having served in this capacity, to board a street-car and not watch the conductor collecting fares. It becomes second nature; and I also claim that it is utterly impossible to keep an exact accounting.

One may be as honest as he can, and still make mistakes by listening to a question asked, and in some way be interrupted so that he will forget to ring up the fare.

But the man who had been discharged, I had every reason to believe, was crooked. On more than one occasion I had detected him, but I had said nothing. However, when the question of our association became involved in a fight with the company as a consequence of his championship, I felt that it was time to interfere.

The boys were unanimous in their demands. If that conductor were not reinstated, then the whole lot of us were to walk out, on the principle of this injustice. The discharge did not rankle their honest hearts so much as the thought of a dishonorable discharge which had blacklisted his name.

All kinds of socialistic speeches had been made, and a majority of the members were so stirred that if a vote had been taken many families would have suffered in consequence.

I saw the trend of opinion. In the meantime, the discharged man was proud of the good-fellowship that the club showed toward his trouble, and unmindful of the suffering which would be meted out to them and theirs as a direct outcome of their loyalty to him. I think it was his selfish attitude that impelled me to act as I did.

Just when the feeling of bitterness was at its height I went up to this man and whispered:

"If you don't get up and ask these members to drop this question, and make a quiet appeal to their reason, you will force me to do so. If you do, I shall tell them why the association, as a body, should not exonerate you. I have watched your course for some time, and have done a little sleuthing on my own account."

He changed color, and in the course of the evening made the speech that I suggested. He told them he was going to leave town, anyhow, and that it would be folly for them to take up the fight to the extent of a strike, and more to that effect.

I am a railroad man, too. I build railroad tunnels. I have worked for the Milwaukee and St. Paul. I have just completed the rebuilding of a section of the Pennsylvania. I built the Illinois Central, the Great Western, the Chicago, Burlington and Quincy; and, in fact, there is nothing I cannot do in the construction line myself. I can truthfully state that I am proud of my railroad experience.



AN EARLY BUILDER.

By George C. Perkins, United States Senator
from California.

I HAVE been mixed up with the transportation business pretty nearly a lifetime; but I have not been identified with the railroad end of it. Yet I had some experience in that line, too, when I built a railroad in California in 1872.

We built this short road of thirty miles or so to connect with the Pacific Coast Company's line of boats at Port Hartford, California. The extension began at San Luis Obispo, California. That was my first successful venture in railway building.

In the year 1860 I made a survey in California, from Oroville to Quincy, along the Feather River, but all my time was in vain. We were never able to finance the scheme, and it fell through, to be taken up later and built to connect with Denver. It is now known as the Western Pacific Company.

Nothing has interested me so much as transportation. I guess my love for it was the outcome of my boyhood, spent before the mast at seven dollars a month. At any rate, the life appealed to me, even in home ports, and I set about to make it a business. The railroad experience was but to further my interest in steamboat transportation.

AN OLD-TIME EXPRESS MESSENGER.

By Albert B. Cummins, United States Senator
from Iowa.

JUST after leaving the academy I became a deputy surveyor, and, after a little time spent as a civil engineer, I became a victim of *wanderlust* and decided to go to Iowa, for the West called me.

There I had my first experience in railroading. I secured employment as an express messenger on the run between McGregor and St. Paul. I grew tired of the work, for our route lay through a sparsely settled country; and there was but little in the monotonous scenery to satisfy the imagination of a roving boy, so I resigned, and once again decided that I would make my fortune in the East.

I stopped in Indiana on my way back, and went to work as division engineer on the Cincinnati, Richmond and Fort Wayne Railroad in 1871. Afterward I was promoted to assistant chief engineer of the same road. At that time the road was in the course of construction.

In the beginning I knew but little about railway construction, but I believed that one's success in life depended upon making up one's mind to reach a certain goal and then going ahead.

A short time after, when the chief engineer was summoned to an important position with an Eastern system, his position was offered me. This was the first big problem I had to wrestle with; but I spent all that night studying the construction of a new bridge, just completed, that represented the general type of construction of the others yet to be built, and which was the only hard place on the line.

Then the chief gave me two days, which he devoted to practical lectures on curves, gradients, and bridge construction, after which I wrote a letter, saying that I would finish the road.

I did, and put it into operation in the limited time necessary to earn certain bonuses.

Then I built a road in Michigan, acting as assistant chief engineer. Within three years from the beginning of my railroad experience, I was offered the position of chief engineer of a road which has since then developed into the Santa Fe system; but I refused this offer, having determined to be a lawyer.

I have never regretted my railroad experience, and, while giving up but a little over



SENATOR CUMMINS.

*Drawn from a photograph by David B. Edmonston,
Washington, D. C.*

three years to it, I have always valued the education and the association.

Twenty years after my experience as a messenger, while campaigning in Iowa, I met the old crew—engineer, fireman, and conductor—who were on my run in those early days. We had a pleasant hour in recalling old memories as we stood leaning against a lunch-counter at the eating station, swapping yarns of bygone years.



"I OWE IT TO RAILROADING."

By Carl C. Anderson, Representative from Ohio.

I WOULD rather have four years' education in railroading than the same number of years in a high school. I started as a yard clerk at Fremont, Ohio, when only

MY LONGEST HOUR.

By Arthur Phillips Murphy, Representative from Missouri.



CONGRESSMAN ANDERSON.

Drawn from a photograph by Harris & Ewing, Washington, D. C.

thirteen years of age, and rose to bill-clerk of the Lake Shore road when I was fifteen. At seventeen, I was cashier of the Lake Erie and Western, and agent of the same road at nineteen.

Railroading is a good educational foundation for young men, and the only drawback seems to me that the service is only for the men who are young. However, the educational advantage is helpful to a man throughout his life, and the force and discipline of railroading surely equips a man for graduation from the "University of Hustle."

I was baggage-master at Fremont, on the Wheeling and Lake Erie, with ambitions to become superintendent, when I gave it up for commercial work. But to railroading, more than all else, I owe the foundation of what I have accomplished.

I WAS just seventeen years old when I began railroading as a section-hand on the St. Louis and Frisco Railroad of Missouri. In the beginning my work was laying ties, putting new ties under the track, tamping them down, surfacing the track, laying rails, spiking them down, etc., and I did this for a year or so, carrying my nose-bag until I thought I had saved enough to stop and go to school in the daytime and study telegraphy at night.

I procured a position as night operator, and three or four years later was promoted to train-despatcher on the Frisco, and Texas and Santa Fe.

During my service as train-despatcher I studied law, and later resigned my position with the Santa Fe to finish my law course. I was admitted to the bar at Waynesville, Missouri, six months after severing my connection with the railroad.

Railroading is attractive work, and has a fascination all its own. The higher you get in the service the greater becomes your responsibilities.

I distinctly remember one very trying hour as train-despatcher—one that I shall not soon forget.

I made a meeting-point for two trains in the opposite direction, and gave a freight-train until a certain time to make a station. The operator disobeyed my orders, and let the trains out without delivering them.

After waiting sufficient time to hear from the operator, I called him on the wire and asked him where the passenger-train was.

He answered: "They're gone."

My hair began to raise. I pictured the disaster that would follow.

"What are you going to do about those two orders you have for them?" I next called.

I tried to raise him on the wire, but I could not.

He had closed his key and left the office, never to come back.

I at once ordered the wrecking outfit, without waiting to see whether they hit or not. Then I began to conjecture how many people had been killed. Fortunately, they did not strike, having sighted each other on the main track; but I had a most uncomfortable hour until I knew the truth. I can most emphatically state that it was the longest hour of my life.

RAILROADING IN A MINING-CAMP.

By George S. Nixon, United States Senator from Nevada.

MY railroad instruction began as a telegraph-operator at Newcastle, California, in February, 1880. I paid the station-agent twenty dollars a month for my board, and received nothing for my services, although I was on duty from five o'clock in the morning until midnight.

But I learned telegraphy and the railway and express business.

My parents chaffed me for my long hours without pay; but I replied: "I am not working for the agent; I am going to school and working for myself."

My parents spent six months coming from Arkansas to California in a "prairie schooner." At the end of their journey, with a few pieces of furniture and an ox, they started ranching on fifteen acres of land, which they planted in plums, peaches, and apples.

My first useful work, I remember, was in that orchard. Expert fruit-packers must have sensitive fingers, else they bruise everything they touch; and I first showed an aptitude for fruit-packing, and worked like a streak of chain lightning. But my usefulness did not end here, and this led to my acquaintance with the station-agent — and to my railroad career.

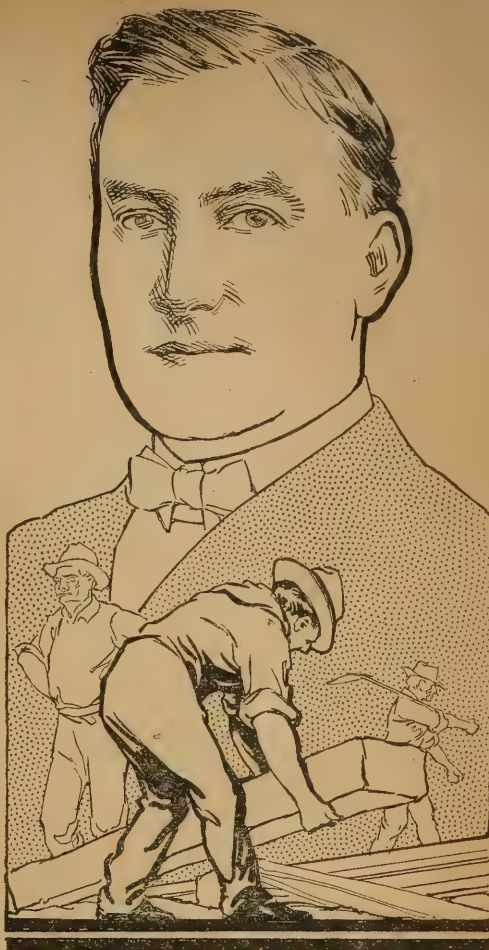
The birds ate our fruit, and father purchased an old shotgun, which he taught me to fire, with the reminder that I was not to shoot the birds while they were in the trees, and thereby do more harm to the fruit and foliage than the birds could do, but to shoot them on the wing.

I soon had a reputation as a wing shot which attracted the attention of the agent at Newcastle, who asked me to supply him with quail for the mining-camps at one dollar and fifty cents a dozen.

Some days I shot six dozen quail, but it was long and tiresome work from early dawn until late at night, often covering a forty-mile tramp to get my game.

My season began in the middle of October and lasted until late in the winter, and so, between quail-hunting and fruit-packing, there was little time to go to school.

I had saved four hundred dollars, and my station-agent friend advised me to learn telegraphy. I was delicate, having malaria, and was glad when, after fifteen months' apprenticeship as a telegrapher, I was sent over to the dry climate of Nevada and put to work at the station called Browns.



CONGRESSMAN MURPHY.

Drawn from a photograph.

This station, one of the most forlorn spots on earth, was located in the center of the "old forty-mile desert."

I was there just three months when I was transferred to Humboldt, a dinner-station, which somewhat relieved the lonesomeness.

I recollect the first telegram I sent from here, and have a copy of it to-day. The English style of signing the writer's name first was followed by the sender. It was dated—

OSCAR WILDE.

April 9, 1882.

MARIE JANSEN, GRAND HOTEL, SAN FRANCISCO:

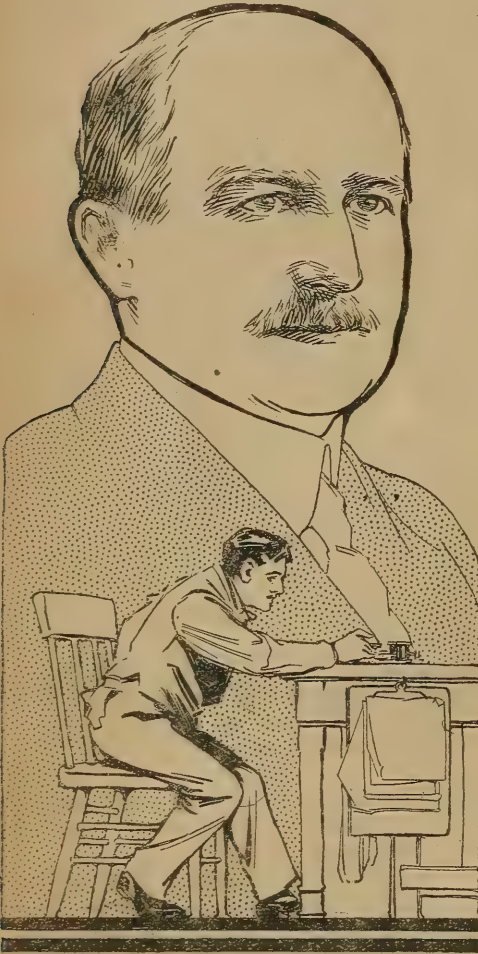
A dreadfully dull journey. Good-by. I have written.

I worked in Humboldt until 1883, and went down to the old Carson Bell Road. One night, about eleven o'clock, I was writing by

a student's lamp with a green shade which, to all appearances, darkened the room from the outside.

The blinds were down, and all was as quiet as a desert house can be, when I heard a rustle at the window.

I lowered my light still more, and waited for developments. Soon the rustling of the pa-



SENATOR NIXON.

Drawn from a photograph copyrighted by Harris & Ewing, Washington, D. C.

per blind began again. There was a glass out of one of the window-panes which left an opening big enough for a slender body, and presently a man's foot was visible.

There was about twenty-five thousand dollars in silver bullion in the safe, and I knew it was up to me to guard it. The robber was at a great disadvantage, thinking I had gone up-stairs to bed and that he had everything to himself.

I stood for a minute wondering if I should grab my Wells-Fargo shotgun and fire, or scare him off. I decided on the latter course.

The intruder's leg was inside the window. I crept up and gave it a dreadful wrench. There was a screech. Never in my life have I seen quicker action than that man demonstrated. Before I could raise the shade, he was scurrying across the sand-hills.

I aimed over his head and fired, just to remind him that I was on the job if he ever contemplated a future call; but I was not bothered by him again.

I was transferred to Bellville, a mining-camp with a population of five hundred. This was a pretty wide-open town, and there were no officers. Each man was a law unto himself.

I had been here just a week when a chap came into the office and asked for an express package addressed to him.

"Yes, here it is," I said, and threw the package before the little window where the stranger stood leaning on his elbows.

I turned to get the bill, for the package was sent "Collect," and handed him the book to sign. This he did, and started for the door without paying me seven dollars and fifty cents, the amount of the bill.

"You haven't paid for this!" I cried.

He stopped for a minute, looked at me over his shoulder, and said:

"Look here, sonny, take your medicine like a man. It's up to you to understand your own way of doing business, but in these here parts I think it would be better for you to collect your money before you give up the goods."

He was gone before I had a chance to think of my Wells-Fargo gun. I could see the force of his argument. I must make good the amount, and I resolved to profit by my lesson.

It was noon; I closed the office and went into the restaurant for my dinner in a very unpleasant frame of mind. There I met the secretary of the mining company, who had just organized a gun club for the amusement of shooting glass balls shot up from a trap.

He asked me to go into the field to see the sport, and, having an hour to spare, I agreed.

To my surprise, I found the stranger who had just cheated me one of the most enthusiastic members of this club. I looked him over without comment; and when I was asked to shoot five balls, I accepted the invitation.

My quail-hunting served me in good stead, and I hit every ball.

Then the stranger said: "I'll bet you ten dollars that you can't hit another five in succession."

"I won't bet with you," I answered; "but I can break the balls."

After some persistence on his part, I agreed to bet with him, provided that if he lost the money should go to the club.

I broke the balls, and he looked his admiration and was game.

"I'll bet you twenty that you can't break ten in succession."

He lost again.

"Now," said I, "I'll bet you thirty that I can hit thirty balls. I'll leave my gun on the ground, uncocked, and you may throw five balls up at a time, and I promise you to reach for my gun, cock it, and smash the five before they hit the earth."

He put up his money, and the club won that bet also.

After that fun, I went back to the office with the information that the stranger was a tin-horn gambler and had always boasted of his prowess with the gun. To gain a point, I had gone through my shooting stunts with all of the antics of long-practised skill to make him lose his money to the club.

Two weeks later the gambler came into the office and said:

"Well, sonny, I guess it is about time to get another package. I guess there's another about due to-day, eh?"

I looked over the packages, and told him he was right. He handed me a twenty-dollar bill. I took the money, found the old bill, and handed him five dollars change.

"You've short-changed me!" he began, ripping out a volley of sage-brush oaths.

My hand was on the Wells-Fargo gun, and I raised it. My! how he did get out of that station. I chuckled to myself after he was out of sight on his way to the hotel, and was more than surprised to see him returning half an hour later.

He had changed his clothes, and was wearing a tight-fitting pair of Mexican trousers and a thin shirt that wrapped his slim body without a wrinkle.

I cocked the gun and was waiting for him. As he came nearer I could see that he was unarmed, and had dressed himself in that attire to show me I had nothing to fear.

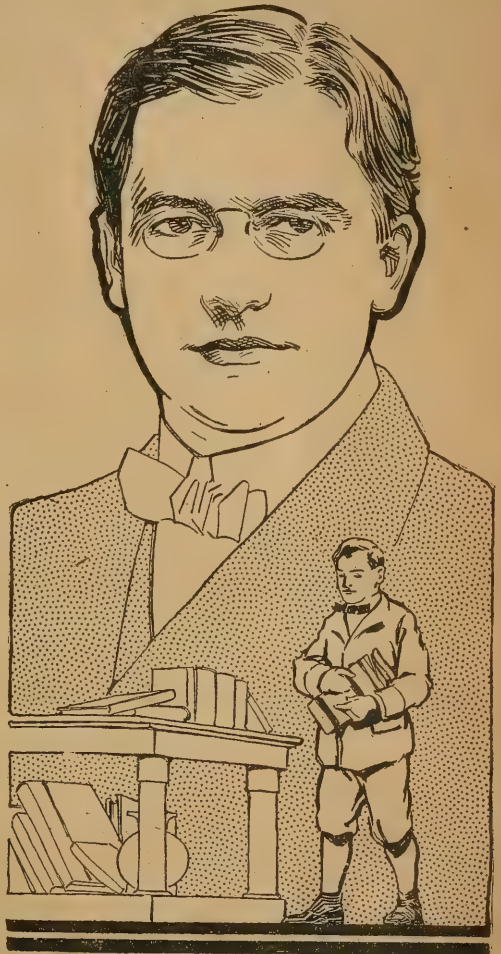
He paused outside the station, and called me to come out and hear what he thought of me. He put his hands up over his head and asked me to search him if I thought it necessary after looking at his scanty wardrobe.

I could see that he was sincere. He

grabbed me by the hand, and swore his admiration for a kid who could get what belonged to him in his own way.

"I knew it was in you, all right, and was just trying you out, old man."

After that little altercation, that man became one of the best friends I ever had. The friendship has lasted all of these years.



CONGRESSMAN CASSIDY.

Drawn from a photograph by Newman Studio, Cleveland, Ohio.

A 36-HOUR STRETCH.

By James H. Cassidy, Representative from Ohio.

IF years devoted to the office side of the business fits a man to enjoy the appellation of railroader, then I think I deserve some consideration. I served an apprenticeship of fourteen years, beginning as office-boy on the L. S. and M. S., at Cleveland, Ohio.

I remained in the claims department during

that period. I spent my evenings while in this office studying and at night-school, and concluded to become a lawyer. My hours in the office made it easy for me to study.

I remained with the company until I was admitted to the bar, then I resigned to practise law. I had no strenuous or exciting experiences, as the office end of it does not fur-

ON THE "FLOATING GANG."

By George W. Norris, Representative from Nebraska.

MY experience as a railroad man has not been extensive. I was only employed as a section-hand, but I have often wondered if I would not have reaped a better reward if I had remained at that vocation and worked my way up.

I worked as a section-hand on the Wabash Railroad, in 1880, for a period of three months, in what is known as the "floating gang."

I had been studying at the State Normal School at Valparaiso, Indiana, to prepare myself as a teacher. When the school closed, I had no money to pay for my fare to Toledo, Ohio, where I had been promised a place on the following term.

I had been boarding myself in a cheap, haphazard way known only to students who fight their battles for a coveted education.

I had a small grip-sack for my clothing, and concluded the best way I could reach Toledo to pass my examination was to beat the railroads.

I started on a freight at night. I crawled into an empty car, but by some bad luck I was discovered and put off. However, I managed to hide on the same train before it pulled out, which was easy to do at night, but my luck again deserted me.

This time, I saw the little red caboose disappear in the distance while I trudged wearily along the track until I boarded another freight bound eastward.

Dead-beating is not as easy to accomplish as some people claim, and I was ignominiously "fired" from three different freight-trains before I succeeded in reaching my destination.

When I arrived there, I passed the examination all right, but three months must pass before my school would begin, and I was broke.

Then it was that I applied for work in the "floating gang," whose work consisted chiefly in tamping up tracks and putting in new steel.

In my judgment, there was then, and always has been, an opportunity in railroad service for advancement to good positions by commencing in the section, provided that the applicant has sufficient education to perform the duties of higher positions.

The railroad man who comes up this way learns minute details that are of great value to an official.



CONGRESSMAN NORRIS.

Drawn from a photograph

nish material of that kind; but I do remember a siege of long hours that once fell to my lot on the occasion of a wreck with a fast freight-train at Zanesville, Ohio.

I was sent out to take charge of the stock of freight, which had to be sorted and sent along on its way, or else replaced with new stock. I worked for thirty-six hours without stopping. Food was brought to me from time to time, and I managed to keep awake until the track was cleared.

RUNNING A BLAZER ON HAGAN.

BY ROBERT FULKERSON HOFFMAN.

A Sorry Attempt at Backbiting, in Which the Biter Got Badly Bitten.

"**I** AM fully acquainted with Mr. Snively's ability and with his overzealousness."

That was the saving clause in a letter which the general manager wrote to the general superintendent, and which that officer in turn forwarded to Masters, the signal engineer. It should have saved Snively, but it did not. He was not big enough to properly assimilate it.

However, the letter, in total, had the effect

of saving his job for the time being, as Masters had frankly recommended his removal to some other sphere of usefulness. In fulfilment of what he saw as his duty, he called in Snively from the line, and laid the letter before him without comment.

Masters really did this from sheer goodness of heart, and just there is where Snively's salvation from himself should have resulted. Instead, a dull flush of mortification and anger dyed his angular face an ugly red, and he walked out of the office after tossing



WALKED OUT OF THE OFFICE
AFTER TOSSING THE LETTER
BACK UPON HIS SUPERIOR'S
DESK.

the letter back upon his superior's desk without so much as a "Thank you."

That performance alone would have won for him an instant discharge if Masters had held an entirely free hand in the matter, but the lamentable fact is that Masters was not thus free. There were reasons, chief of which was that Snively was the son of a professor in a pine-stump college, and the professor, long years ago, had been the able teacher of the present general manager. The general manager, in turn, felt that he was paying an unwritten obligation by trying, in every legitimate way, to teach the younger Snively the science of railroading. He intended only that Snively should have his chance, fairly and fully, it is true, but he did not yet understand, as did Masters, that Snively was a failure before he ever enlisted in the service.

So, Snively's little bluff of tossing the letter back disdainfully worked, apparently, with Masters, and the youngster flounced into the drafting-room and took his place at his drawing-board.

He was a scrawny little runt. He could not help that. Three generations of escape from the wholesome physical stimulus of the anvil and the plow had dwarfed his body and sharpened his wits more than "goff," on one hand, and bulldog pipes filled with over-scented tobacco, on the other, could counter-act in one generation.

Filled with the petty prejudices of school and campus, he was now being badly upset by the stirring, practical applications of the hurrying life about him. Just now, he was bitterly detesting, with a hatred his eyes had made no attempt to conceal, the men whom he had learned glibly to classify as "muckers," chief of these being Masters, upon whom, he mentally assured himself, he had just run a beautiful blazer.

With that his self-esteem again took the ascendant. He thrashed over in his mind the wording of the general manager's letter, while he savagely jammed down the thumb-tacks in preparation for a drawing that had been assigned him. By the time he had the work well laid out he had reached the satisfying conclusion that the word overzealousness was a stenographer's error which had escaped the notice of the writer at signing, and the reference to his ability fell like a healing dew upon his wounded sensibilities.

Therefore, he straightened his small height importantly before his drafting-table, rolled his shirt-sleeves higher upon his golf-browned arms of pitiful meagerness, hitched his small trousers higher by the belt, and glared quite

disdainfully round at the backs of those who labored at the tables about him.

Meanwhile, Masters, returning the letter to the general superintendent, just across the hallway, was saying in conclusion of a very serious-faced conversation:

"Oh, yes. He's smart as the rest of them—but he's little. *Little* beyond helping."

"Well," said the general superintendent dubiously, "give him another chance, and keep a tight rein on him."

"Put him out with Graves on some of that surprise test work. Graves can hold him level. Maybe there is something worth while in him. If there is, I'd like to find it, for the old man's sake—and so would you."

"Yes," said Masters, quite heartily.

And that, with the best intentions in the world, is the way the situation finally culminated in a crisis for Hagan, very soon afterward.

Half an hour after the conference in the general superintendent's office, the signal engineer's office-boy laid a folded note, still damp from the letter-press, upon Snively's drawing-board, and was turning away without comment, when Snively halted him harshly.

"Here! What's this?" said he.

"Don' know," said the boy. "Mr. Masters said copy it in the letter-book, and you bet I copied it!"

Properly addressed and dated, the plain and brief instruction read:

Train No. 5 will drop you off at Babblar.

Meet Mr. Graves there to-night and work, subject to his orders, on surprise signal tests, until recalled.

Now, be it known that these surprise tests, the setting of false signals surreptitiously against engineers and firemen, at unexpected times and untoward places, had been the subject of much acrimonious discussion before its adoption. But, spirited as that official discussion had been, it was nothing as compared with the bitter denunciation which the practise had brought out among the train-crews since its inauguration, and the resulting discipline which had been applied from time to time as the result of its disclosures.

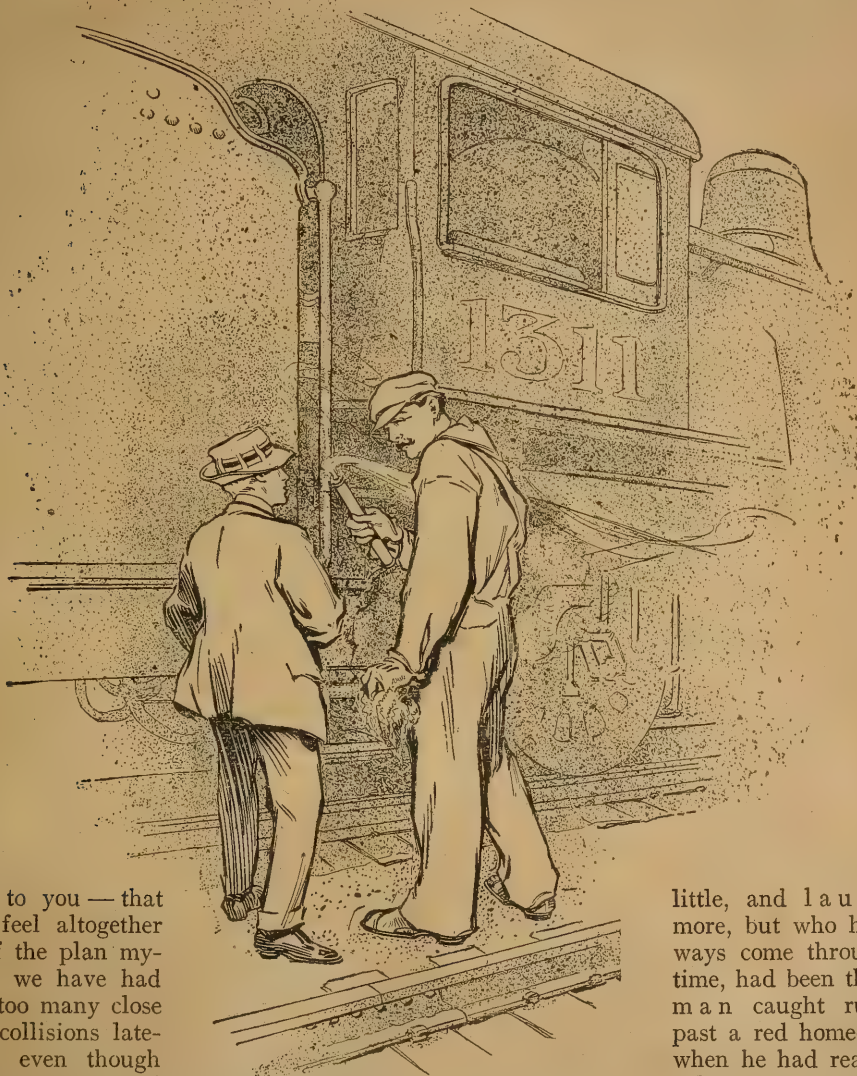
"It is too much like a low-down conspiracy," the general superintendent had said in the beginning of its consideration.

"It is tempting a man to steal when he is hungry! Hungry for time on his schedule, and a man who is not carrying that kind of appetite is no good on an engine. He's got to eat up every minute on the face of his

watch, or he is no good to us, and it don't seem fair to lay out behind a rock and hand him that kind of loaded bun when he's doing his busy best to make time honestly."

"That is all very good on the face of it," the general manager had replied. "I will

Jim Hagan, big, rough-spoken, capable Jim, with his bone-stirring laugh and steady nerve and clear judgment, that had carried the mail through on time against almost inhuman odds on more than one occasion; Hagan, who had growled some, and swore a



IF I EVER CATCH YOU MONKEYING A
SEMAPHORE LIGHT AGAINST ME,
YOU'LL GET ABOUT SIX MONTHS
UNDER WATER."

admit — to you — that I don't feel altogether proud of the plan myself, but we have had entirely too many close calls to collisions lately; and, even though there may be a point of unwritten law, that where you conspire to have a man commit an offense you become equally guilty, I want this thing tried out for a while. At least, until we get some idea of what is really to be expected."

That, of course, had closed the discussion as far as officialdom was concerned, and the hateful and hated spy-system of signaling had immediately gone into effect.

little, and laughed more, but who had always come through on time, had been the first man caught running past a red home-signal when he had reason to believe that the block would clear before he struck trouble.

The block had cleared safely enough,

but somebody had lain behind the bank of a near-by cut and made the first serious dent in Hagan's spotless record of six years of banner engine-running.

Hagan was indignant, disgusted, eloquent, fighting mad, by turns, after the record was posted and the punishment applied, but it



"THAT'S ONE OF THE MOST DANGEROUS RUFFIANS ON
THAT ENGINE I'VE EVER SEEN."

all availed nothing for him. He had to take his medicine. His clean record was gone. After that, he never ran by a red light of a horizontal semaphore - arm, no matter how good the chances seemed, and that was as it should have been.

But, from the night on which he was caught stealing, he never saw a man climb a signal-mast or paint a switch - target without making uncomplimentary remarks about his antecedents and his probable eternal welfare. Hagan was mad, in short, deep down and all the way through.

Therefore, when young Snively sauntered up alongside of Hagan's engine on the evening that he received orders to meet Graves at Babblers, Hagan lowered his head and charged around the point of the pilot with the manner of a man who is forcibly tearing himself away from his dearest vice. He

wanted to thrash, spank, Snively on sight, and of course he knew that would not do. So he fled to the farther side of the engine, and Snively made the mistake of following him up.

Snively was blissfully unaware of the smoldering fires of wrath which the signal-department's spy system had kindled. He had fixed ideas about holding hard for ideals, and saw nothing very stirring about trapping a proud old veteran as Hagan had been trapped, or in putting the resultant smirch upon a veteran record. In fact, the job was just about up to Snively's measure.

He liked it, and was so free of all question of shame in the premises that he did not in the least understand that Hagan and every other engineer on the line knew every man in the signaling department, and hated them all so far as they could see them.

He followed Hagan around the pilot quite confidently, therefore, somewhat patronizingly, it must be confessed, and when the engineer could find no further excuse for prodding over and between the engine-frames with torch and oiler, he turned and faced him savagely.

"I'll ride out to Babblers on the engine with you to-night," said Snively, handing out a card-pass for Hagan's inspection. "Guess I will take a look at the signals going out."

"Maybe you will," replied Hagan, depositing torch and oiler on the broad top of the guides.

He examined the pass carefully, as though hoping to find a defect. Finding none after a careful search of both sides of the card, he returned it jerkily, and said:

"Well, I guess you'll have to get aboard! So you're smelling around after signals, eh? Um-huh. Well, mebbe we can show you some between here and Babblers, but they'll be moving some!"

He picked up his torch and tools, with that, and started toward the engine-step at the gangway, while Snively trailed in silence at the rear.

Then, just when he had raised his foot to mount to the cab, Hagan had a vision of that one dark blot recently fallen upon his railroad escutcheon. His foot dropped with a thud to the ground, and he turned upon Snively with the sort of smile that those who knew Hagan best never liked to see.

"Climb up, Bub," said he, stepping aside with a wide flourish of his torch in the sur-

rounding blackness. "And, while you are climbing, let me tell you this:

"If I ever catch you monkeying a semaphore light against me, you'll get about six months under water, if there's a borrow-pit handy! And to stand committed until complied with," he added, with a slight tightening of the smile.

"That's no threat, son, you can tell your parents," he continued in the same counterfeit of good-humor when they had mounted to the cab.

"Just a fair promise that your services will be recognized and rewarded, if I can help you out of the bushes any."

What Snively said is of very little consequence.

In fact, he had no clear recollection immediately afterward of having said anything. The whole thing was, to him, so incomprehensible, so utterly treasonable and absurd that he did not get the sting of it fairly fixed in his mind until Hagan had whirled the west-bound mail over its prescribed course, and, upon its particular minute, had dropped him on the little platform at Babblar.

Then, as he stood in the yellow glow that fell from the bay window of the telegraph-office and watched the triangle of red tail-lights following the roar of Hagan's receding engine farther and farther into the lonesome night, the sting of the affront that had been put upon him began to rankle in his small mind, and he soon gave the proof of the littleness that Masters had discovered by plotting a cheap sort of revenge upon Hagan.

"Bub! Borrow-pit! Six months! Why, the fellow had talked to him as though he were an immature tramp!"

He astonished the operator by entering a sudden interruption into the wire report of the passage of the mail:

"Say! That's one of the most dangerous ruffians on that engine I've ever seen!"

"Who?" queried the operator, in mild surprise, when he had finished his report to the despatcher.

"Who, Hagan? Oh, Hagan's all right. Guess you never saw very many, did you?" hazarded the operator good-naturedly. He was hauling out a pipe in great unconcern. The mail, west, was safely through his bailiwick once more, which seemed to him to be the main issue of present importance.

"Well, he'd better be," replied Snively evasively. "When does he come back?"

"Makes a turn-around at Kansas City, and comes through here again at midnight, on the mail, east. Why?"

"Oh, nothing special. Has Mr. Graves been here to-day?"

"Kansas City," replied the operator briefly.

"Oh, no!" replied Snively with an air of superior knowledge. "I was to meet him here to-night."

"You will, if you wait until Hagan comes east with the mail."

"How do you know I will?" demanded Snively.

"Read it on the side of a box car," replied the operator shortly, turning to the papers that littered his desk.

His good-humor had yielded and vanished before the persistent churlishness of Snively. The sullen roar of the water among the piers of the bridge over Big Babblar drifted in through the open windows, and emphasized the silence that followed the operator's last announcement.

Snively stood for a moment longer looking in through the window upon the operator, who paid him no further attention. In the drear loneliness of the isolated station and the hostile atmosphere that he had created, the world seemed suddenly grown a very cold and soulless place. He was aching with a sense of self-pity and unreasonable wrong.

Turning, then, from the window, he walked the short length of the platform, and stood in the darkness at its end, looking away to where the recently installed distant signal brightly showed the beginning of the Babblar block. Nearer, the home-signal sent up its mast into the night, and both, he knew, were blazoning forth their silent messages to the line that the block was clear and all was well.

Likewise, he scanned the signals, home and distant, upon the paralleling double track; then, definitely, his half-matured plan to run a blazer on Hagan was formed. Why wait for the arrival of Mr. Graves? He knew the process, quite as well as Graves did: how to manipulate the magnets, drop the disk to show red on the home-signal after Hagan had passed the distant at clear, and then restore the clear of the home-signal when Hagan stopped, or failed to stop.

Capital! Hagan had to stop, anyway, to drop Graves. No reason why he should not be tried out on a stop short of the station, and let the record be turned in by Graves with the other reports.

Yes, Snively knew the process, but what he did not know was that, for reasons sufficient to the operating department, Hagan would return that night upon the left-hand track, instead of the right, and that upon the

parallel right-hand track a heavy freight was even then bowling toward him through the darkness from the same direction.

Had he known those things, he would also have known that Hagan, with his fast mail, would be running the freight a close race when, later, they arrived at the Babblers block, but he kept widely clear of the obnoxious operator, and loitered out to the river and back before making his preparations near the home-signal mast.

When, finally, he heard the distant sound of an engine whistle, and saw the faint upward glow of a headlight hidden among the bluffs, he established himself behind a high barricade of cord-wood that stood on the apex of the curve between the tracks and the water-filled borrow-pits which had earlier contributed to the filled approach to the bridge.

Presently, the full glare of a headlight broke clear in the last notch of the bluffs across the river, and the bright shaft of light came driving and blinking through the slant of the bridge over the Big Babblers.

Close up behind it in the cab was Dave Tate, with the recollection of a clear distant signal just passed, and with the home-signal

showing high and clear before him when his engine shot out of the end of the bridge. Following the engine were fifteen cars of light freight fitted with air-brakes, and back of them, rolling rapidly, were twelve cars of heavy dead freight—non-air.

It was a bad make-up, but Dave took them as he got them. With a final look at the clear home-signal, he opened out fully as he cleared the bridge, and the engine responded with a rising, stammering roar from the stack. Then the home-signal suddenly went red.

Dave's hand dropped the throttle shut at a single shove, and fell swiftly upon the brake-valve, with no time for thought of air or non-air. The brakes crashed home upon the fifteen forward cars, and the twelve free loads behind them lunged forward against them and hunched and crowded and groaned in their interrupted flight.

The dark, crowding line stood the frightful strain until Tate and his engine with nearly half of the train had been crowded, bucked, pounded past the home-signal mast, with its light again turned suddenly to clear.

Then the three light box cars at the middle of the train were suddenly lifted and cata-



TOWERED HIGHER THAN THE CORD-WOOD BEHIND WHICH SNIVELY HAD SECRETED HIMSELF.

pulted into the air. They fell, a splintered and cluttered mass, upon the opposite track, and mounted to a ragged pyramid of broken timbers and twisted trucks that towered higher than the cord-wood behind which Snively had secreted himself.

While the ruin was grinding its way into final silence, a second bright, swifter, gleam had been racing toward it among the bluffs across the river.

No friendly bar of steel or vagrant truck in all the ruin had so fallen as to set the distant signal of the parallel track to warning position. Hagan, with the mail, shot past the distant, saw the home at clear, saw the tail-lights of the freight all safe and intact upon the opposite track, and he swept through the bridge and dashed into the wreck with only a futile movement of his left hand.

He had not a chance. The time was too short and the curve too sharp. His engine plowed into the clutter of freight-cars, writhed for an instant among them, and then leaped, with a sharp crash of steam escaping from broken pipes, into the crest of it all.

She toppled and hung and glided outward across the curve for a single instant, and then engine, crew, and the mail-cars dashed down with a grinding roar among the flying cord-wood. The borrow-pits sent up a yellow wash of waters and took the mail into their depths.

That night and the following day, the clay-pits held their secrets grudgingly. On the second night of fierce laboring, they began to give them up under the pitiless search of the wrecking-cranes.

Hagan came first. Then they bore his fireman away and laid him on the little station platform, beside Hagan.

"Well! That's all, I guess," said the wrecking foreman.

He surreptitiously smeared a vagrant tear or two across his browned cheeks with the back of his hand while he sloshed carefully back and forth in hip-boots upon the cord-wood, which was beaten into the bottom of the pits like a crude floor.

"No," said the night operator quite positively. "There is one more."

He had been quietly comparing notes with Tate, who had been doing sleepless duty on the engine of the wreck-train.

"How do you make that out?" challenged the wreck-master, instantly all business again, with not a trace of sentiment.

"I found this on the edge of the clay-pit last night," replied the operator, "and unless the fellow that owned it is running yet, he's here!"

He drew from his pocket and held upon his open palm a dainty bit of a brier pipe with a slender, curving stem of amber.

"There was a young fellow smoked that pipe at my window, a while before this thing started. He went away and didn't come back. Tate, here, says the home-signal went from clear to red and back to clear, all after his engine came out of the bridge."

"What do you say, Dave?"

"That's what I say!" replied Tate, with not a trace of venom.

"Somebody monkeyed the home-signal! Where is he?"

The strange floor of the pits came up, stick by stick. Finally, there came with it the pitiful last of Snively's running of a blazer on Hagan.

His offense was great and his conception of things was very small, but, somehow, when the veterans had laid him beside Hagan and the fireman, and looked down upon his poor, bedraggled little shape, they found no room in their hearts for bitterness—only pity.

BILL NYE'S RAILWAY PASS.

A Melancholy Missive Written by the Great Humorist when He Returned the Precious Pasteboard to the Genial Giver.

(From an Old Scrap Book.)

HUDSON, Wis., March 20, 1887.

W. F. WHITE, ESQ., GENERAL AGENT, ATCHISON, TOPEKA, AND SANTA FE RAILROAD, TOPEKA, KANSAS:

DEAR SIR—I enclose herewith annual pass No. Q 035, for self and family over your justly celebrated road for the year 1887.

I also return your photograph and letters you have written me during the past five years. Will you kindly return mine?

And so this brief and beautiful experience is to end and each of us must go his own way hereafter. Alas!

To you this may be easy, but it brings a pang to

my heart which your gentle letter of the 1st inst. cannot wholly alleviate.

Whenever hereafter you look upon this tear-speckled pass will you not think of me? Remember that you have cast me from you, and that I am wandering across the bleak and wind-swept plains sadly enumerating the ties on my way to eternity.

I do not say this to reproach you, for I fear that you care for another, and so we could not be happy again together.

But, oh! do you pause to fully comprehend the pang it costs me to return this pleasant-faced little pass with its conditions on the back? Could you see me even now, as I write these lines, turning away ever and anon, laying aside my trembling pen to go and sit by the grate and shudder and weep and put out the fire with my bitter tears, your heart would soften and you would say:

"Return, O wanderer, return."

You do not say in your letter that I have been false to you or that I have ever grown cold. You do not charge me with infidelity or failure to provide. You simply say that it would be better for each to go his several ways, forgetting that my several ways are passing away, passing away.

It is well enough for you to talk about going your several ways. You have every facility for doing so, but with me it is different. Several years ago a large Northwestern cyclone and myself tried to pass each other on the same track. When the wrecking-crew found me, I was in the crotch of a butternut-tree, with a broken leg. Since that time I have walked with great difficulty, and to go my several ways has been a very serious matter with me.

But I do not want you to think that I am murmuring. I accept my doom calmly, yet with a slight tinge of unavailing regret.

Sometimes, perhaps in the middle of the dark and angry night, when the cold blasts wail through the telegraph wires and the crushing sleet rushes with wild and impetuous fury against the windows of your special car, as you lie warmly ensconced in your voluptuous berth and hear the pitiless winds with hoarse and croupy moans chase each other around the Kansas haystacks, or shriek wildly away as they light out for their cheerless home in the Bad Lands, will you not think of me as I grope on blindly through the keen and pitiless blasts, stumbling over cattle-guards, falling into culverts, and beating out my rare young brains against your rough right-of-way; will you not think of me? I do not ask much of you, but I do ask this as we separate forever.

As you whiz by me do not treat me with contumely, or throw crackers at me when I have turned out to let your haughty old train go by. I have always spoken of you in the highest terms, and I

hope you will do the same by me. Life is short at the best, and it is especially so for those who have to walk. Walking has already shortened my life a great deal, and I wouldn't be surprised if the exposure and bunions of the year 1887 carried me off, leaving a gap in American literature that will look like a new cellar.

Should any one of your engineers or trackmen find me frozen in a cut next winter, when the grass gets short and the nights get long, will you kindly ask them to report the brand to your auditor and instruct him to allow my family what he thinks would be right?

I hate to write to you in this dejected manner, but you can not understand how heavy my heart is to-day as I pen these lines.

I wish you and your beautiful road unmitigated success. It is a good road, for I have passed over it and enjoyed it. How different the country will look to me as I go bounding from tie to tie, slowly repeating to myself the trite remark once made by the Governor of North Carolina to the executive of South Carolina.

I hope you may never know what it is to pull into the quaint little city of La Junta with the dust of many a mile upon you and the thirst of a long, uneventful journey in your throat.

I hope that Congress will not pass a law next year which will make it a felony for a railroad man to say "Gosh!" without a permit. I hope that your life will be chockful of hurrah and halleluiahs, even if mine should be always bleak and joyless.

Can I do your road any good, either at home or abroad? Can I be of service to you over your right-of-way, by collecting nuts, bolts, old iron, or other bric-à-brac?

I would be glad to influence immigration or pull weeds between the tracks if you would be willing to regard me as an employee.

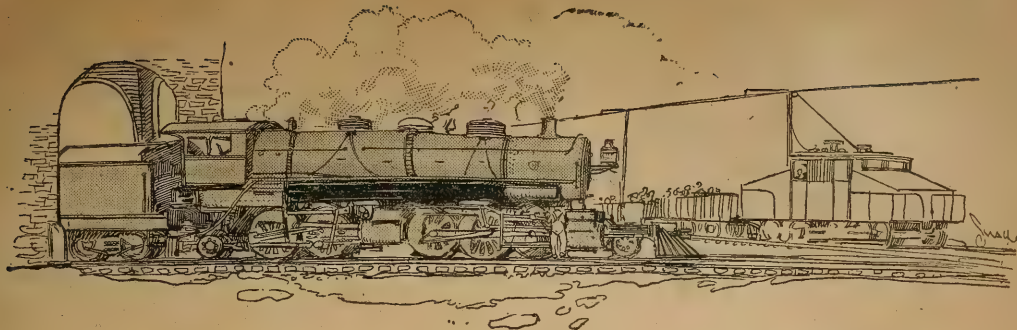
I will now take a last look at the fair, young features of your pass before sealing this letter. How sad to see an annual pass cut down in life's young morning, ere one-fourth of its race has been run. How touching to part from it forever. What a sad year this has been so far. Earthquakes, fires, storms, railway disasters, and death in every form have visited our country, and now, like the biting blasts from Siberia, or the nipping frosts from Manitoba, comes the Congressional cut-worm, cutting off the early crop of flowering annuals just as they had budded to bloom into beauty and usefulness.

I will now close this sad letter to go over into the vacant lot, behind the high board fence, where I can sob in an unfettered way without shaking the glass out of my casement.

Yours, with a crockful of unshed tears on hand,

BILL NYE.

Da boss he cursa da rails, da ties, da ballast, an' da dago. He say all rotten. Still da trains not get wrecked. Guess da boss earna his mon working, not talking. Me too.—Soliloquy of a Section Hand.



Locomotives While You Wait.

BY ARNO DOSCH.

FILLING rush orders for locomotives is a problem with gigantic proportions that staggers the minds of those not acquainted with the workings of a huge locomotive plant and unfamiliar with the herculean undertakings evolved there. To the average person, whether the output of such a works is one locomotive a day or only one a month is very much a matter of guesswork, but when a firm like the American Locomotive Works can turn out four engines every day in the week, it helps to clear any existing uncertainty.

Four locomotives a day, 120 a month, 1,440 a year—Atlantic or Pacific type passenger-engines as you choose. Moguls, Prairies, and even a Mallet, with often less than thirty days elapsing in their evolution from mere billets of steel to proud, speed-burning locomotives!

How do they do it? Mr. Dosch, who has been delving into the mysteries of the great locomotive works, describes the manner in which the work is accomplished. It is a story of brain and brawn, of multitudinous details, and Brobdingnagian undertakings.

The Huge Locomotive Works at Schenectady, New York, Where Rush Orders for All Types of Steam Engines Are Filled with the Simplicity of a Well-Equipped Store.

BILLETS of iron and steel, tremendously heavy, and giving an overpowering sense of unlimited strength, lay in the dust at one end of the Schenectady shops of the American Locomotive Works.

At the other end they were becoming living, breathing monsters of the rail at the rate of four a day.

It sounds big. To see it is remarkable; and, after you have followed the process through, you feel as if you had been present while the earth gave birth to giants. You

can talk about it only in circus-poster adjectives.

I was there to find out how they set to work when they are called upon to furnish fifty locomotives in a hurry, an order which they were just now striving to fill. A round-house on an important railroad had been burned and fifty locomotives were out of commission. The whole system had been tied up, and the general manager was a mile in the air, refusing to talk to anybody.

What was there for him to do? he asked. He couldn't buy locomotives in a store.

There wasn't a stock of them for him to go and choose from. Nowhere was there a locomotive he could beg, borrow, or buy.

A Rush Order.

After ten minutes, he got the American Locomotive Works on the wire, and asked them what they could do to help him out of the hole. The answer came immediately.

"If you are willing to take established types, you can have them in thirty days, delivered four at a time until the order is filled. If necessary, you can have them even faster. On that basis we can deliver you fifty or five hundred."

In making that promise the sales-manager was aware of the fact that the iron and steel out of which some of those locomotives would have to be built had not even been bought; but, in an emergency, he knew that they could get the material somehow. It might take some scrambling, but it could be done.

The order was even then being shoved through the shops. It called for half a dozen widely divergent types, from switch-engines to a Mallet articulated compound; but, as regularly as clockwork, four engines were being shoved out into the world each day. I asked William Dalton, the chief consulting engineer, how this rush order could be filled so readily.

Saving Time.

"Half the work was already done before the order came in," he replied. "They were willing to take our standardized types, and saved two-thirds of the time. As soon as the order arrived it was possible to turn the work in the shops directly over to it. Time is consumed not only in the actual construction of the engines, but in planning them out on paper. If conditions on all railroads were the same, so that they could all use a limited number of established models, the manufacture of locomotives would be as quick and easy as the movement of one machine. As it is, however, every railroad has particular conditions to meet and presents certain specifications. To meet these requirements an engineering department of 500 men is necessary. We have filed away in our library over 100,000 variations in the types of engines.

"Sometimes the variations are small, sometimes great, but a locomotive is such a perfectly balanced structure that a change in any part means the readjustment of the whole locomotive. Our ordinary orders require

weeks of figuring before the work begins, and in some cases the plans for a locomotive remain months in the drafting-room before they are turned over to the shops. When C. J. Mellin evolved the first big Mallet that was ever built, he figured on it steadily for five months before he was able to get the proper adjustment.

"When he had finished he had found a way to distribute the weight evenly between the forward and the rear drivers. But, when a railroad orders Mallets and asks for changes here and there, it is necessary to figure the whole engine in its every part to bring that weight distribution just right."

He led the way into a big room where most of his staff were at work over desks, figuring sizes, weight, and strength.

"Those men," he said, "are all laying out an engine. Each of the three hundred in this room has a share in it, and the thoughts of all are constantly centered on the final result.

"Outside in the shops you will find the counterpart of each one of these men, but it will be a hammer, machine, or forge. Each man in this room must make his part fit into the whole to meet the exact requirements of the engineer in charge of the work. In the same way the product of each hammer, machine, and forge must be exactly right when it arrives at the assembling-floor where the engines are put together."

"In a hurry order this half of the work has been done. It probably took months of figuring to arrive at the model used, but it is all on record. To start the work it is only necessary to send out the blue-prints to the shop and the order-books to the purchasing agents. That is why we can make locomotives while you wait."

But, since this preliminary work is essential, I stopped to learn how it was done before following the rush order in its rapid progress through the shops.

Plans and Specifications.

Orders are all received through the New York office, and are forwarded immediately to the engineering department at Schenectady, which plans the work for the ten separate shops operated by the company. With each order comes specifications made by the railroad, and it is very seldom that two railroads make the same demands. Three things decide the size and form: the grades on the road, the speed required, and the weight of trains the locomotives will have to haul.

Orders of any size are rarely all for one type of engine. In an order for thirty locomotives there will probably be five or six different styles, and, in the case of each, as far as the engineering department's labor is concerned, there is as much work as if each style were a distinct order by itself.

Each requires an entirely separate set of figures. Roughly, the chief points covered are the weight of the engine, the diameter of the cylinders, the stroke of the piston, the size of the wheels that can go with these specifications, and the boiler capacity to furnish steam for cylinders of that size.

Each set of these figures must bear an exact relation to all the others, and no one of them can be absolutely determined upon from the start. The only fixed considerations are the physical features of the railroad for which the engine is intended. These cannot be changed. The grades must be coped with, and the railroad has determined on the size of trains and the speed at which it expects them to travel.

In making this nice adjustment, and at the same time getting all the power and speed the railroad requires, there is always the danger of putting too great a weight on the axles. Aside from this, the engineers always succeed in meeting the specifications, but to do so requires a corps of high-priced consulting engineers. Whenever an order comes in requiring a variation in type, Dalton, their chief, assigns to one of them the duty of arriving at the desired end as best he can. This happened in the case of the first big Mallet referred to. Mellin, who evolved it, is one of the consulting engineers, and, as part of the day's work, he figured out the engine that has revolutionized the hauling of freight.

Diverse Designs.

In this case the work happened to be particularly hard, as there was an engineering problem to be solved that had never been met with before. It required his constant attention, and he figured out the whole engine practically by himself. Ordinarily, his duties are more general.

From his varied experience, he knows what style of engine is necessary to do certain work, and the average order that comes before him is usually but a variation of some model that has become standardized. It is only necessary for him to establish the larger proportions in a general way. He has always at hand a whole body of assistants ready to

seize upon the details and work them out. But, as there must be a head, he places in charge an "elevation man."

The general proportions he has established bear about the same relation to the finished locomotive as an artist's model to the completed painting. The "elevation man" wields the brush. He is the engineer's painting arm. He must know exactly what the engineer is driving at, and, to have that information, must be a first-rate engineer himself.

He draws a general outline of the engine and then begins the intricate and delicate task of building a locomotive on paper. It goes on in two directions at once, and involves all of the three hundred men in the room.

Figuring and Refiguring.

On one side of the broad central aisle are the draftsmen figuring on the parts, deciding on the necessary size of rods to meet the strain, the thickness of the boiler required for a certain head of steam, and all the thousands of details, each one of which must be varied to meet the requirements of the whole. All the time they are working on these details, the calculating department is paralleling their work, comparing one part with another, and noting the necessary variations in the different parts in order to arrive at the required design.

During this process, which may take a few weeks or many months, no one portion of the engine is absolutely fixed as to size, and the temporary results arrived at by the calculating department are being constantly transmitted to the busy draftsmen, who, as rapidly, are forced to change their drawings and figure over again the strain on the rods, the thickness of the boiler, and all the other details.

Usually, after each detail has been figured again and again, and the calculating department has got down to a basis of estimate, the elevation man discovers that the nice balance required has not been attained, and it becomes necessary again to alter the parts throughout the whole engine.

In the Mallet, on account of the exact distribution of weight necessary between the forward and rear set of drivers, this difficulty is doubled, but in any engine the weight must be so evenly distributed that it will be the same on all the drivers.

The process of figuring may be necessary several times, each new set of calculations coming nearer to the requirements, until

finally the exact size and weight for each of the thousands of parts has been figured down to the last degree. Then an expert takes all the figures and verifies every detail.

Securing Materials.

Meanwhile, if no attempt were being made to push along the work, weeks would be lost in obtaining the material. As it is, long before the work has been turned over for the scrutiny of the experts, the material is under way, and by the time the blue-prints are made from the drawings the material is all at hand, so that the shops can begin work at once.

Getting things ready from the material side demands constant attention from the start. As the work of figuring the size and weight of parts begins to take form, a pretty general idea of the amount of material necessary can be obtained.

In order to get the orders in as quickly as possible, there is an elaborate system which moves forward day by day automatically. It involves the filling out of many forms and the writing up of many books, each of which fills a definite part in the system, and advances as of its own momentum. This system is far too elaborate to be more than outlined here.

Some portions of the work take longer than others, and, in order to get the greatest speed, work must be started on these first. In other portions there is difficulty in getting material. The steel mills are often slow in deliveries, or the brass foundries are far behind in their orders. The market for steel castings, axles, or boiler-plate may vary from day to day, and the system must be constantly altered to meet these outside conditions.

One date is always fixed—the day on which delivery must begin. It may be ninety days, sixty days, or even thirty days or less, and all other dates must be figured with that as a basis.

The Purchasing Agent.

The men at work determining the size of the parts have a certain date on which they must have prepared the information for the purchasing agent, so that he can go out into the market and buy what he needs. Delivery from that point on depends on his ability to get the material, and, as he is allowed only enough time in which to make his purchases, that date is final as far as the engineering office is concerned.

Just to keep these orders up to date is a whole system by itself, but it is so simple that the chief engineer can at any moment run his finger down a column and tell exactly what portion of all the vast amount of work in the shop is behind time.

As long as the work is under his immediate supervision, he can keep it up to the mark, but the moment it gets beyond him, he has to contend with the inclination of all things to go wrong, not the least of which is the tendency of cars to go astray. Ordinarily enough time is allowed in the schedule for the cars to arrive by the most devious and roundabout way, if they insist on being perverse, but, when there is a rush-order on, cars must come through on schedule.

An Army of Inspectors.

To meet this emergency, there is a large body of men whose sole business is to climb in with the material and conduct it personally from the mills to the locomotive works. These material-chasers, as they are called, have much the same duties as the super-cargoes who used to be sent with cargoes of merchandise on sea voyages.

As long as the cars keep on the move they have nothing to do, but the moment one is side-tracked or shows an inclination to wander from the prescribed path, they set up a howl that straightens things out in a jiffy.

In placing the orders, the purchasing agent sends with each an inspector to see that he gets what is wanted. In point of fact, the mills from which the concern buys are filled with inspectors all the time. Orders follow one another so rapidly that they never have a chance to leave.

When the order leaves the mill, it is, as far as the inspector can tell, exactly according to specifications; but, upon arrival at the shops, it must go through the hands of the testing engineer. He analyzes it chemically, and puts it to all sorts of tests and strains to see that it is perfect. Then it is delivered at the shops, where it is worked over into the required parts.

The inspection does not even end there, but continues through every process. Even those huge billets of steel and iron are ordered in much larger sizes than necessary, so they can be sawed at the shops on the chance of discovering possible flaws. Later, I noticed a small pile which had developed defects and had been set aside to be shipped back to the mill.

The first half is now done. The engine

is built on paper, and the material is at hand for the actual construction. It has taken the constant, intense efforts of five hundred men, but it is difficult to grasp the bigness of it, even after you have seen the backs bent over desks, and the minds strained in calculation. This is the point from which the work starts when a rush order is received. From now on the magnitude of the task holds you fascinated.

It lies before you like a panorama, and progresses with the rapidity of a moving-picture film. You go from shop to shop, the wonder of it growing on you, until all at once you are on the assembling-floor, standing in a trance, completely overwhelmed by the work of creation that is going on before your eyes, while locomotive after locomotive is built in all its naked strength.

In picturing the work, my mind constantly reverts to those billets of iron and steel. I feel as if I could not have understood the size of the task, if I had not seen them lying there in the dust, waiting to be given life.

First they are shoved into a white-hot furnace. Then, at the right moment, steel hands reach out and fling them under the steam-hammers, and the work of building an engine is under way.

With a smash, the hammers thunder down, tripping so fast that the sparks fly in a steady shower. They seem intent only on hitting as hard as they can, as they plunge wildly up and down, but behind thick masks, close to the red-hot metal, stand some of the most skilful and highest-paid men in the shops, watching the effect of the blows, and directing the power behind the hammers with consummate skill, and, as the half-molten metal is turned beneath the hammers, they smash or pat it as the occasion requires.

Presently the steel begins to take form, with bends and curves here and there, and when the forgings are set aside to cool from an angry red to black, they have all the dimensions of size and shape indicated in the blue-prints lying beside the hammers. All they need now is to be planed smooth, to take their places in the frame that holds the boiler solid to the axles.

A Weird Spectacle.

Across the way, in another enormous shed, an even more spectacular process is under way. At first glance, it is like one of the scenes in theatrical pieces where the center of the earth or the inhabitants of the moon are produced, with the exception that the

stage effects seem frauds, while this looks like the real thing.

Through a dust that rises thick in the air you can see earth-gnomes bending down over molds into which molten metal is running from some place far aloft like water out of a hose. Under the strong light shining down their bodies are distorted and dwarfed, and it is hard to believe that they are men making cast iron. Even later, after the strange influence of the light on the dust has gone, when the castings arrive at the assembling-floor, they bring back vividly the picture of their origin, and seem hardly to have been made by human hands.

All that was gigantic in those two sheds becomes but a background, however, the moment you step into the boiler-shed. Scattered thickly over the whole extensive floor surface lie hundreds of boilers in every stage of construction, from the solid sheets of steel to the completed structures, with the hoods on, tubes fitted, and fire-boxes attached, waiting to receive their numberless fittings.

In the Boiler-Shed.

The impression you get is that of a vast collection of shells of some prehistoric lobster bigger than a mammoth, and that ruled the land and sea. If the billets of steel and iron gave a sense of power derived from the earth, these huge boiler-shells increase it a hundred-fold. When you see the solid sheets of steel bending unwillingly beneath the rollers, you get an undeniable impression of the life inherent in them, which is only increased when they have been bored full of holes that are plugged with stout rivets. Through it all is the deafening racket of the boiler-shop.

Much of the less conspicuous work goes on almost unappreciated by the visitor. There is so much of it that the mind cannot grasp it all at once. Lathes cut constantly at one surface, tires are shrunk until they grip the wheels in an everlasting hold, smoothly working, inconspicuous machines turned endlessly on the lesser parts, tenders and cabs appeared as if by magic. It was only among the steel forgings that the bewilderment ceases.

Here all those parts which must bear the great strain are being made. Their number is now much larger than it was a few years ago. In time they will practically supplant all other forms of steel and iron. With larger engines and constantly increasing speed, there are now many parts made of forged steel which were cast iron in the engines built only a short time ago.

In the midst of all this work you see the one thing you forget until your attention was called to the little partitions at one side—the local drawing-rooms. In each are three or four men constantly receiving orders from the office of the chief engineer, and interpreting the blue-prints to the pattern-makers, the molders, the boiler-makers, and the men who are directing the countless machines, spelling out the orders in terms of steel.

Among them move the inspectors, the testing engineers, even inspectors in the employ of the railroads for whom the work is being done. Every part of every engine, no matter how great the hurry, passes through the hands of each of them, whose duty it is to detect the least imperfection and the slightest possible flaw. It makes no difference if it does cause a delay, nothing can pass their hands that is not absolutely perfect.

The Assembling-Floor.

At this point you begin to appreciate the fact that you have been moving in a circle, and the product of each shop has been shoved along toward a central point—the assembling-floor. In an hour you have caught up with work that began two weeks before where you did. Here, on the assembling-floor, the boilers have found a solid seat in the saddle between the cylinders, the smoke-stacks are being put in place as if they were hats, and the work of connecting up the drivers, with all the many details that lay between the lever and the piston, progresses so rapidly that what were mere skeletons a few days previously are now ready to be sheathed and take the road.

The certainty with which each part finds its place makes it appear as if the boilers were great magnets that attracted what they need from the surrounding shops, until they are completely outfitted with all their parts.

When the skeleton of the engine is yet uncovered, it gives an appearance of strength it later disguises. The very rivets studding the boilers speak for the concentrated, throbbing power about to be created within.

I was fortunate in seeing at this stage several 440,000-pound Mallets, the biggest locomotives the world has ever seen, and, without their outer coverings, they looked several times as large as they really were. But, even reducing them to their real proportions, it seemed as if there has never been a road-bed constructed that could support them.

They were in all conditions, from the time when the huge boiler-shells were being placed

on the trucks to that critical moment when the monster first feels the breath of life. Of all these stages, the most impressive was toward the end when the whole body of the boiler was being swathed about with a white, heat-retaining compound preparatory to placing over it the sheathing that disguises its crude strength.

Filling the Bill.

A few final touches of paint, a careful inspection of every joint, and the trial engineer was getting up steam in the one just completed. Slowly it began to throb with the new life, and carefully it was taken out and put through its paces. Everything was in its place, every part true; there was only one serious danger—a hot box.

It was the fourth one that had gone out that day, and with each had gone a trial engineer, who remained with it until it had entirely found itself. In this case it was going to help fill the rush-order, but it might have been going to Chicago, California, Peru, China, Argentina, Egypt, Persia, or South Africa. In any case, the engineer would have gone with it to teach it how to behave.

Afterward, when I saw other such engines as those breathing heavily at stations, or tearing across the country, with seventy-two solid freight-cars behind, their sleek sheathings no longer hid their double-riveted boilers, and even the tread of the wheels only made me conscious of the pressure behind the piston.

As I close this article the news reaches me of a rush order for eighty-five locomotives which has just been received by the Baldwin Locomotive Works, Philadelphia, a powerful competitor of the American Locomotive Works with an equipment similar in every detail to that of its rival. This large engine-building plant has been called upon to furnish \$1,250,000 worth of locomotives for the Harriman lines, with deliveries to be made during the months of October, November, and December. If the order is filled during the time called for in the contracts, and there is every reason that it will be, it means that during the next six months the Baldwin plant will finish, on an average, a locomotive every other day to be used over the divisions of the Harriman system.

The order is one of the largest on record since the financial depression of 1907-1908, and shows a tendency away from the policy of retrenchment that it was feared that a number of the railroads have been contemplating.

THE MAN WHO WASN'T GAME.

BY WILLIAM S. WRIGHT.

I Manage to Make My Way Beyond the Limits of Western Civilization.

SYNOPSIS OF PREVIOUS CHAPTERS.

JOHN ANDERSON, at the age of thirty, down and out, relates his experiences and hardships. At the age of twenty-one, resenting a reprimand from his father, he ran away from his home, taking with him twenty dollars which he had received from his mother to make some purchases in a near-by town. Arriving at the city at night he lands in a miserable hotel where he pays ten cents for a bed. Here he meets a man calling himself Billy Brown, who immediately adopts him as a pal, taking him to breakfast the next morning and telling him he can put him next to a good job in the evening. Billy is recognized on the street by some detectives as Red Pete, wanted for a bank robbery, and in the succeeding chase he is shot. John Anderson, or Andrews, as he now calls himself, is arrested as his accomplice.

CHAPTER III.

Put Off the Train.



THESE chronicles are not intended to follow every detail of the exciting life-story that I shall set forth herein. I shall be content to relate only the most graphic happenings—the most blood-tingling and hair-raising that came to me in my wild career as a wanderer.

On the day after my arrest in Omaha as Red Pete's pal, I was released by the police judge. He was willing to take my word that I had never met my companion of the night before until I awoke in that vermin-ridden sleeping-house.

Red Pete, for it was really he—a notorious robber who had fallen into the clutches of the police—very kindly offered the information that I was not in any way connected with him, and that he had no pals whatsoever.

This evidently impressed the judge. He told me that I was free, but he gave me twenty-four hours in which to leave town.

I did not wait until the twenty-four hours were up. The first train that I could get for the West, I boarded. It was not a freight. It was a passenger.

I stowed away under a seat in a day

coach, and hid there successfully, suffering more tortures than ever could have been meted out to any other man, until the train stopped at a small town in western Nebraska.

A woman who had been sitting in the seat under which I was hiding, dropped her bag as she was making ready to alight. As she stooped to pick it up, she spied me, and set up the most frightful yell that ever I heard.

In a moment, every other passenger in the car came to her rescue. They must have thought that she was about to have a fit, for she seemed to be unable to utter a word.

Heaven knows how I wish that it had been so. But what she could not make up for in speech, she accounted for in signs. She pointed under the seat and—

In a moment I was dragged out by rough hands. One passenger punched me in the jaw—for what reason, I do not know. This was a signal for the others to add to the pummeling that I was in for, and it seemed that every other man that could crowd around wanted to land on my jaw for good measure.

I was so terribly cramped from my long ride under the seat, that I could not find strength enough to punch back, but I did want to hit that fellow who hit me first.

I don't know what they would have done

to me if the conductor had not come along at that moment.

He brushed some of the passengers aside and asked me what I was doing. I told him the truth. Then he turned on the passengers and said:

"It would be a good thing to ask a man who he is before doing him up in this manner."

He had a kindly spirit. He was human. He knew when a man was down. He saw by my punched and bleeding face that I had the worst of it, and he was for teaching those brutes a little lesson in human nature there and then.

"He has told the truth," he added.

The passengers began to move back, abashed.

"Where do you want to go?" asked the conductor.

"Most anywhere," I replied. "I thought that I would strike out for the West."

"Well, I'm sorry," he continued, "but I must put you off here. It is against the rules, you know."

No, I did not know, but somehow or other I did not care.

He took me by the arm, led me to the rear platform and down onto the station. By this time the passengers had alighted and the train evidently delayed by my discovery. The kind-hearted conductor waved a high-ball and jumped aboard. In another minute he was out of sight.

There I was—left on the station of a water-tank town. It was evident that the train did not stop there every day, for the place was thronged with a queer idle crowd. The populace had evidently come to the depot when the train whistled that it was going to stop.

When they saw the conductor politely deposit me in their midst, they eyed me curiously. They were mostly farmers who had driven into town. There was a smattering of cowboys and not a few women and children.

One of the cowboys approached me. I must have been a sorry-looking object. One of my eyes seemed to be closing and bulging, and it was mighty sore when I touched it. There were several places on my face and neck that felt pretty raw, and the blood was trickling down my shirt.

A cowboy came up to me, and the crowd gathered around to hear what I had to say.

"What happened, cully?" he asked.

"I was put off the train," I replied, "because I was stealing a ride."

I then noticed that one long, lank, individual in the bunch disappeared in a hurry and started across the dusty pike.

"What ye goin' to do here?" asked a big burly man with a heavy mustache.

His question was so foolish that I did not answer. I looked around to see if there wasn't some water handy so that I could bathe my face.

I moved around to the side of the little station house, when I noticed the long, lank man returning with a somewhat husky black-bearded man who carried a short club and wore a large star on his left breast.

My intuition—which had stood me in such good stead all these years and which seldom has failed me—told me that this man was the police force of the place.

I was not wrong. He came up to me like a cyclone. The crowd had gathered around in such numbers that I was now hemmed in and it was impossible to make any headway.

"Who are you?" asked the bearded man with the star.

"Who are *you*?" I replied. "I am a stranger in this town. I was put off the train for not having a ticket. I got badly done up. What are *you*?" I asked again.

I marveled at my impertinence.

"I am the county marshal," he said, and, without any further ceremony, caught me by the arm and dragged me off to the lock-up.

For the second time in my short career as a free-born wanderer on the face of the earth, I was locked up. Just why I should have been accorded such treatment, I could not understand, but I was overjoyed when, a few hours later, I was brought before the town squire and released.

Surely the judges have more to commend them than the police.

This squire, a young man evidently of good breeding and education, who, I afterward learned, owned a large ranch in the vicinity, asked the marshal why he had arrested me.

"He looked to me like a bum," said that worthy.

"Just because he had been put off a train and was badly beaten, he looked to you like a bum. It never occurred to you that this man might be in pain and need assistance, did it? If you had been in his place, bleeding and friendless in a strange town, would you have liked such treatment?"

The county marshal looked then like a whipped dog.

"Answer me!" shouted the squire.

The marshal could make no answer. He

simply looked at me and walked out of the court. I was set free.

Would that there were more men tempered with such mercy as that young purveyor of the law in that Far Western town. Should he ever come across these lines, he will know who writes them.

I was at liberty again—as they say of the prisoners who have served their terms. I walked out of the court and men came up to me and congratulated me. Others sneered and made remarks that dubbed me as an unpopular candidate for further residence in that town.

But I had one desire, and that was to wait and shake the hand of the man who had set me free after such an ignominious arrest. I waited at what seemed to be the only entrance to the little court-house, and soon was rewarded by the appearance of the magistrate.

I walked up to him and held out my hand.

"I want to thank you, sir," I said, "for your kindness to me—for the justice of your words."

He took my hand and shook it.

"No one need be thanked for doing what is right," he replied. "You seem to be in a pretty bad way. Here. Go down to Clawson and tell him that I said to fix you up for the night."

He handed me a ten-dollar gold piece. Then he bowed pleasantly and walked over to his horse, which he mounted with alacrity, and rode off.

I looked at the coin. Great Scott, but it was welcome! There was life in the old land again.

Clawson's was the only hotel in the village—which I will name Grinnell, for obvious reasons. Clawson's was to Grinnell what the main store, post-office, and saloon, when combined into one inharmonious whole, are to the average one-horse town. It was the Waldorf-Astoria of the place—it was also the Bowery Retreat.

I made my way to its hospitable doors, and Clawson himself met me. He was behind the counter. I guess some queer ones had asked for lodgings in his time, but, perhaps, I gave him more cause for sudden fright than anything that he had seen in years.

He leaned over the ledger as I came to a stop in front of him, and before I had time to utter a word, he said:

"You're the guy what was thrown off the train this mornin', ain't you?"

I nodded.

"Well," he went on, "you don't get nothin' here."

"Squire Oliver told me to come here," I said, not without some feeling of resentment, "and told me to tell you to fix me up."

"Squire Oliver!" He drew back. It was evident that I had struck a vital spot. But he changed his facial expression and said:

"That don't go down with me, young man! Any funny business around here, and I will have you up 'fore the squire to be sent to jail."

"Squire Oliver sent me here, and if you don't believe it, ask him!"

My ire was up. "And if there is a law in this State demanding that a hotel-keeper take a man in when he has the money to pay, I'll ask the squire to put it in force!" I answered, as I took the ten-dollar piece from my pocket and rang it on the counter.

Just then the county marshal ambled in and noticed the argument. He gave the belligerent Clawson the signal that it was all right, evidently, for Clawson turned the register to me, and I started to sign.

"In advance," he informed me, before I had time to write my name.

I passed over the gold coin. He rung it hard on the counter. At its sound, a red, grizzle-featured man who was sitting near the stove looked up. Clawson took a key attached to a huge brass disk from a board over his safe, and personally conducted me to the top floor—the third—of his hostelry, down a long narrow hall, at the end of which he unlocked a door.

He took me into a small room and asked me how long I intended to stay.

"Till the morning," I replied, not knowing how long I would stay.

"All right," he replied, "I will send you up your change in a few minutes."

He sent up nine dollars. He had charged me one dollar for that room for one night. That was going some, and especially when my capital was so very limited and uncertain. And still, in view of the wishes of the good young squire, I could not have done otherwise.

Clawson had showed the way to a large public bath at the end of the hall, opposite my room. I was soon in there and in the cooling, welcome water. Great Scott! as I look back now, that bath felt so good that if I had any adverse thoughts toward humanity they were quickly dispelled.

The water did smart the chafed spots on my face and neck, but it eased my black and swollen eye. Once clean, I returned to my

room, turned the key in the door, and threw myself on the bed for the first good sleep I had known since I left my home.

CHAPTER IV.

The Night at Clawson's.

I WAS suddenly awakened by a strange sensation at my throat. As I came to my waking senses, it dawned on me that I was being throttled—a human hand was on my throat and my head was being pushed against the wall.

I opened my eyes and they were blinded by a sharp white light. I struggled and could see that it was night, and save for the sharp light that the attacking party tried to blind me with there was no other light in the room.

My assailant had a desperate grip on my throat, and he only used one hand. But I could feel that it was a very big hand, for I grasped it with my two in an effort to release its clutch.

As soon as my assailant saw that I meant fight, he raised the lantern that he was holding and brought it down on my shoulders. He had aimed for my head, but missed. Then I began to realize that I was in a more desperate corner than I had at first imagined.

He was evidently a burglar who had the proper tools, for the lamp was one of those long, round-shaped affairs that have an electric attachment and throw a small piercing bull's-eye light as steadily as a ray of the sun.

In the darkness, I could feel my assailant. My hand now and then touched his skin as I struggled to free myself. It was cold and clammy. Finally, mine ran across his face in an effort to get at his throat.

I managed to get a grip on his hair and, with more violence than I imagined I could summon, I threw him backward on the floor.

He went down heavily. I groped about for a light, but, before going to bed, I had failed to locate the matches. It was daylight when I had flopped on the bed. Now it was night.

"Who are you?" I shouted.

He made no answer.

Presently I heard him fumbling. He seemed to be making for the door, but in that awful darkness, it was impossible for me to do anything. The room was very small and there was one window beside the bed, while the door was about three or four feet from the foot.

I gathered my senses, and said to myself

that it would be best to get into the hall and make an outcry.

I made for the door, but, in the darkness, I stepped on the body of the intruder. As I stumbled forward, he, by some peculiar grip on my wrist, threw me to the floor. I crashed down, bumping my head against the foot of the bed.

In a moment he was up and had struck a match. As he did so, I heard the click of a revolver being cocked. Just as the match flared up I saw the burglar standing over me.

"Don't get up," he said, "or I'll put a load of this in you."

He stepped to a small table—the only other article of furniture in the room besides the bed—and lit a candle.

As its light filled the room, I noticed the red and grizzled features of the man who was sitting by the stove when I paid Clawson the money.

He was not typical of the West—not the Western man that I knew and was accustomed to meet. He was large and beefy. His face was particularly red and freckled, and his hair was also red and somewhat long. He wore no mustache, but his face was covered with a stubble beard of the same color as his hair.

"Where is that money?" he said. "Come, be quick! Where is it?"

"What money do you mean?" I asked.

"You know! And don't ask me any questions. The money that Clawson handed you this afternoon. The nine dollars change."

My fortune was going. Against that muscular man, armed with a six-shooter, I had no chance.

"Hand it over, quick!" he shouted. "I want to make my getaway!"

I dug into my pocket and took therefrom the money—and handed it to him.

He put it in his pocket and backed toward the window.

"Don't you dare leave this place till daylight. If you do, you will be killed! There is nothing for you to do but stay here!"

He went out of the window backward. It was evident that he entered by a ladder. I was not going to lose my coin so easily, and he was not going to make his getaway without some sort of a struggle.

Just as his head disappeared below the sill, I blew out the candle and made for the window.

I let out a cry that must have awakened every man in Grinnell, for instantly there was a crowd with lanterns and all manner

of shooting-irons. Clawson came to the door with a big lamp which shed a welcome light on everything, and after making what explanation I could, we went down to the office, which was now thronged with excited cowboys and others.

In the midst of all stood my friend the sheriff.

He was clad only in a suit of red underclothes. He had gotten out of bed to be of official service, but he had not forgotten to pin his gleaming star on his shirt. I wondered if he slept with it on in case of just such an emergency.

Being an officer of the law, he was among the first to be recognized. Finally, he said to Clawson:

"What has he done now?"

"He says that he has been robbed," replied the hotel proprietor. "I changed a ten-dollar piece for him this morning in payment for a room, and he claims that a man broke in on him and robbed him."

The marshal was for disbelieving me. I could perceive that by the look that was coming over his face. I looked straight at him and said:

"You're going to tell me I'm a liar! I can see that in your face. I don't care whether you believe me or not, you can go around to the window and see the ladder standing against it."

"That don't go down with me!" he said. "I just think I'll take you in as a suspicious character. Squire Oliver ain't the only one in this town, and I guess we can prove somethin'."

"Hold on there, marshal." It was a sharp clear voice—a voice that I had not heard before. The speaker had just entered, and he was somewhat fatigued. It was evident that he had been running fast.

"What you got to say, Len," said the marshal, addressing the newcomer.

"I believe this man—and furthermore, I saw a fellow riding down the pike at a pretty fast gait just a while ago. He looked to me like he was on your white mare. I heard the noise, and I came up to see what's happened."

Whoever Len was, his word evidently went for something. The marshal lost no time in making his escape. He rushed over to his own home, and, in the early dawn, which was now just breaking, he could see that his white mare, which usually had the run of a small corral, was missing.

I gave as good a description of the man as I could, and he was immediately recog-

nized by Clawson. Then a posse was formed and the bunch set out in the early morning light to run down the robber.

They followed the road as far as the nearest village—a distance of six miles—only to find the marshal's mare, foam-flecked and panting, standing by the roadside. Nobody in that village had heard anything of the robbery or seen the man.

The only reason that could be given for his escape was that he had arrived in time to catch a freight that was just pulling out.

They brought the mare home and the marshal was satisfied as to my innocence. But I could only think of the nine dollars that had gone and wondered why fate had willed to treat me so harshly.

Clawson, instead of turning me out on a cold world, gave me a job in his kitchen—"till something better turned up," as he put it.

I took the place gladly, for I was strong and willing. But the work was of the filthiest nature imaginable. It consisted largely of cleaning all the utensils on the place, washing the dishes, scrubbing the floors, and similar chores.

I was up every morning at five o'clock, and at eight at night, when the last bit of work was done, I was aching in every bone.

The hard couch, in an outhouse back of his ill-smelling kitchen, on which he let me sleep, was oh, so soft and welcome.

As I always determined to see anything through to the end that I undertook, I resolved to stick to this job until I had saved enough to take me out of the town. I had always wanted to go to San Francisco, and I learned that I could get a tourist's ticket to the California city for the sum of eighteen dollars.

Clawson was paying me the joyful wage of three dollars a week, and I figured that if I held onto the job assiduously for a period of three months, I would save up enough to buy the ticket to San Francisco and a new suit of store clothes, so as to arrive there looking somewhat respectable. Once I struck that wonderful Western metropolis, I thought, I could get a start and make a future.

I worked as carefully as a man knew how. I scrubbed the floors of Clawson's hotel as they had never been scrubbed before. I washed his dishes till the lye that I put in the water ate into my hands and made them sore. He had no cause for complaint and he complained not.

And each week, I saved most every cent of

my hard-earned wages. I took no chances. I put my money in the dollar savings-bank of Grinnell.

How pleased I was when the third month passed and I found myself with sufficient money to buy the ticket to San Francisco.

CHAPTER V.

Shanghaied.

THE journey to San Francisco was devoid of any excitement. I had put up some cold meat and bread in an old cloth which Clawson kindly donated. That is, he donated the cloth. The food he sold me, and at the same price that he charged his transient guests.

It would have been an easy matter to have filched sufficient provender for the trip from his larder, but two things I absolutely would not do: I would not steal and I would not lie.

I arrived in San Francisco one morning about five o'clock. A cold damp fog hung over the city and we sat on the pier at the Oakland Mole waiting for the first ferry to start for San Francisco. I had never seen a more forbidding sight. It was before the "great quake," so I must write of the city by the Golden Gate as I knew it.

When I finally landed on the foot of its most prominent thoroughfare, I put my hands in my pockets and thought of what to do first.

I wandered up Market Street until I came to a small coffee-house and went in. As I sat over a steaming cup of very good coffee and a trio of the best doughnuts I had ever eaten, I took an account of my capital.

I found that I had just seven dollars and eighty cents, so it was "up to me" to find work.

I was fairly presentable, and it should be an easy matter to get something to do. The man who waited on me and who was evidently the proprietor of the place, in response to my question regarding a place to put up at, directed me to a boarding-house near the shipping, commonly known in San Francisco as "the water-front."

Thither I went, and after a short parley of words with the landlord, engaged a stuffy, ill-smelling room for two dollars a week—paying him in advance. At least, I had a place to lay my head at night.

When it seemed to be a reasonable hour for the places of business to open, I started out in quest of work. To relate the untiring

efforts on my part to find work and the rebuffs and refusals on the part of the many to whom I applied, would only tell others a story that they know too well.

I walked the streets of that big city for three days, and none would give me employment. I asked for any position, from a clerk—for which I was ably fitted—to chore-boy, but there was nothing doing.

On the fourth day, I managed to secure a temporary place in a stable, not far from the lodging-house where I had my room. The stable-keeper wanted a man to arrive at his place as early as five o'clock every morning, and clean and harness the horses for the various delivery wagons that were lodged in his establishment.

The pay was small and the work hard, but it was a start, and I would live inside the income. I was to receive four dollars a week from him until I landed something better. That was my resolve.

I was making for my place of work the second morning. I had never felt so contented. I knew that the world was again good to me—and I was confident that if I did my work faithfully and kept sober, I would go ahead.

While engrossed in this dreaming, a powerful arm from behind slipped under my chin and threw my head back.

A hand was clapped over my mouth and a hoarse voice commanded:

"Don't make any noise!"

It was still dark and it was impossible to see around me.

There must have been two men at the game, for a pair of hands quickly manacled mine behind my back, and, while my head was being held back and my eyes blinded, a sack was put over my head and tied tightly about my waist.

Then a handkerchief was tied over my mouth. Indeed, so tightly was it drawn that it kept my mouth open and formed a gag.

A voice cautioned me not to speak. I could not have done so had I wanted to.

More quickly than it takes to tell it, a man caught me by either arm and I felt myself being hustled along the street at a most unseemly gait. Twice I stumbled, but my assailants picked me up and pushed me along.

"Hurry him!" I heard one of them say. "Hurry, hurry!" They seemed to be increasing their speed.

What new sort of attack was this, I managed to let whirl through my seething brain.

They hustled me along for a short distance. I stopped once and let my feet drag,

but a sharp and stinging kick on my shin told me that that sort of resistance would not be tolerated.

They quickly pulled me onto my feet, and I felt a kick or two administered to remind me that this was no time for fooling.

Finally, I felt myself being lowered into some place. A rope was placed around my waist and I was let down a distance, dragged a few feet—and my journey ended.

It all happened in such a short space of time that to tell it takes even twice as long. I became exhausted and sat down. Suddenly a peculiar motion seemed to control everything—a gentle motion as a swaying to and fro. It began to sicken me and, besides, the place had a peculiar odor that was heavy and oily.

I sat there wondering if I was being precipitated to the bowels of the earth, when I heard voices.

"Yes, a good prize," said some one.

Then I felt the manacles that bound me being loosened, the gag was removed and I could see.

I was in the hold of a ship—that was plain as day.

I had been kidnaped—that was also evident. But they do not call it by so juvenile a term on the Pacific coast. I was being shanghaied—carried away by force to serve on shipboard.

Three men stood over me. One had a cocked revolver.

"A good husky lad," said this one, eyeing me. "Did you have much trouble landing him?"

"None," said another. "He came easy enough when we got the gag in."

"Good work, boys," said the one holding the revolver. "Let him lie here till we get outside the heads. Make yourself comfortable, sonny. We'll send you down some grub and water after a while."

They climbed up a little ladder, pulled a covering over the compartment that I was in, and left me there in the black darkness. It was darker and blacker in that awful smelling place than I had ever imagined. The vessel soon began to lurch and roll and my stomach could not stand it. I became deathly sick—so violently sick that I became

utterly helpless. For once I asked the privilege of dying.

I was conscious of one thing, however. The place was infested with rats. I could hear them scampering over the board and they squeaked so loudly that the sounds made an almost uncanny vibration in the darkness.

Several times, I am sure, they ran over me and touched my hands. I was not too sick to discern that.

I cried out, I called to God, to my mother, I cursed myself for ever having left home. I wondered just why one who really wanted to do what was right should meet with so many cruel misfortunes.

Not long after that daylight entered again, and with it the three men who had visited me earlier in the day.

"Come on deck," said one.

I was really too sick to stir. One of the men came behind me and urged me to obey with the toe of his boot. I struggled to my feet, my head dizzy from the eternal motion of the vessel, and, with the assistance of two of the men, I made my way up the ladder along a narrow passage, and onto the deck.

The fresh air did seem good—but I was sick, deathly sick. Desperate as those men were, they knew that I was unable to move—that I would be unable to speak even, until the effects of the sea had passed away.

"He's sicker 'n a dog," said one.

"Drag him to the lee scuppers," said another, "and let him stay there till he's all right."

Grab me they did. They caught me by the collar and fairly dragged me across the deck. Then, with their handy feet, they pushed my legs into a position to suit them.

There I lay—for how long, I do not know. The hot sun burned into my brain. The sea seemed to be getting calmer. I was slowly getting my better senses. I could think more clearly, but my legs were weak and my muscles ached.

Then the night breezes came up cool and cooler. I could hear the men going to and fro and smell the odor of their evening meal. It had no attraction for me, however. I wanted to sleep. I closed my eyes, wondering what awaited me on the morrow.

(To be continued.)

A quick exhaust may mean slipping drivers. You can't fool anybody with a loud noise.—The Yard Foreman's Homilies.



HOW THE RAILWAY EARNINGS OF 1909 WERE DISTRIBUTED.

There Was Paid in Salaries to the Railroad Employees of America, in One Year, 41 per cent of \$2,604,766,165.

OUT of the maze of statistics of American railroads, presented in the annual report of the Interstate Commerce Commission for 1909, an interesting design has been formulated by *The Railway and Engineering Review*, giving a clear, concise picture of the manner in which the gross earnings of the railroads were distributed during that year, and the large share awarded to each factor that assisted in the maintenance and operation of the great common carriers of this country.

The huge railroad pie at the top of the page may well be considered a toothsome morsel when the reader stops to realize that it represents a total value of \$2,604,766,165. It is enough to make one's mouth water for a good big bite, but the mouths of railroad men have not watered in vain, for theirs was the biggest piece of all. The large section of the diagram labeled "Labor," represents over a billion dollars, and, though it had to be divided up

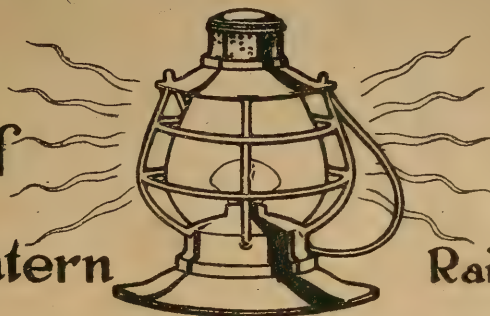
among over 1,500,000 men, ranging from presidents to track-walkers—there was a share for every one.

Those who may have been inclined to think that capital sometimes gets more of the profits of a railroad than it deserves will be amazed at the three small divisions showing the proportion of earnings that go to stockholders and Wall Street indicated as "Interest on Funded Debt" and "Dividends," all of which total only a little more than half of what goes to make up the railroad men's pay-checks.

What the railroad men get represents a little over one-third of the whole pie, but it may well be large, for it is the share of the men whose hands and brains have kept the trains running on time and who have helped to build up the passenger and freight receipts. It represents many days and nights of ceaseless toil, with heavy wear and tear on muscles and gray matter of the army that makes the operation of our railroads possible.

WHAT'S THE ANSWER ?

By the
Light of
the Lantern



Questions
Answered
for
Railroad Men

ASK US!

WE like to be as useful to our readers as we can; but, because of the great popularity of this department, we are forced to impose certain restrictions. It is limited to the answering of questions of an informative, technical, or historical nature only. Letters concerning positions **WILL NOT** be answered in this department. All letters should be signed with the full name of the writer, as an indication of his good faith. We will print only his initials.

PLEASE explain the Brown system of discipline as applied to railroads.—A Reader, Nevada.

This means discipline by record, instead of being actually administered. In other words, suspension by record instead of actual suspension. The record is in the form of demerits, and the system as a whole is very similar to the form of discipline employed in the public schools. To simplify: When a road finally decides to inaugurate the Brown system, every employee has his past offenses forgiven and every employee affected by the system starts with what is called a "perfect" record.

If a breach of rule should occur, the offending party, after investigation, is penalized with a number of demerit marks on his record equal to the gravity of the case. For instance, leaving a terminal without examining to note whether the tender-tank contained water, might result in five demerits on the engineer's record, if a subsequent delay ensued. Running by a train standing at a station on a double-track road might be punished by ten demerits, and so on.

The Brown system does not extend to shopmen, but includes practically every one in the train service on the roads where it is employed. As a rule, when the record contains fifty demerits the man is warned, and when one hundred demerits are in evidence he is dismissed from the service. The system is also retroactive, as every year with clean records effaces so many demerits—say six or even ten—and thus the incentive is afforded for a man to

wipe out previous bad marks. By this elimination process it is possible to return to a "clear" record, but it is not possible to return to a "perfect" record, as the latter is one which has never had a mark set against it.

The Brown system, of which the above is the general outline, has been extensively employed by railroads of this country. The New Haven uses it in its full acceptance, the Erie in part, and the Santa Fe in part. It has been found to be effective in securing the ends of discipline, more so in fact than the former system of actual suspension. In the latter, a man could not wipe out a bad record, but this is thoroughly possible by two or three years' cautious work under the Brown system.

A. E. H., Brainerd, Minnesota.—So far as we can learn, there is no intention to change either the name of the New York, New Haven, and Hartford or the Boston and Maine, no matter what consolidation may be effected. As you are probably aware, the general status of this entire matter is imperfectly understood, and we have not seen any official statement issued by either company.

WHAT is the idea of an engineer having steam on his engine while coming down about a one-per-cent grade with a full line of freight-cars behind him? I have noticed particularly that freight-trains in this country always exhaust the same as would take the engine up-hill.

(2) C. P. Railroad passenger-engines have three large wheels on each side, but the connecting-rod or rods are only connected to the two nearest wheels to the cylinders. The rear wheel is slightly smaller than the others and runs free. What is the idea?

(3) I have noticed engines on the C. P. (Montreal line) when steam is shut off it still escapes from first one side and then the other with a noise like cracking a whip. Please explain this also.—A. P. W., Toronto, Canada.

(1) Running a freight-train is a fine art, and it cannot be well explained from an editorial office, as there is always present some local condition in which the engineer must take the initiative. We cannot say from here why, in this instance, he should "pull" his train down a one-per-cent grade, as they will roll down plenty fast enough, requiring in fact very careful braking to hold them.

[We shall endeavor to explain this question fully in an article which we intend publishing in an early number.—THE EDITOR.]

(2) Your question suggests the Atlantic, or 4-4-2 type, having a four-wheel leading truck; four connected drivers, and a trailing truck, the latter being the somewhat smaller pair of wheels to which you refer. The use of the trailing wheels is necessary when the fire-box is widened for additional grate area, and placed behind the driving-wheels. The trailing-wheels carry part of the weight of the engine in that quarter, and are generally designed to have some side motion.

(3) This noise is occasioned by the escape from the cylinder by pass valve. This is one of two small double-disk valves mounted in chambers bolted to a steam-chest containing a piston-valve. The larger face of the by-pass valve is in communication with the interior or steam cavity of the main piston-valve, while the smaller face is on the side toward the cylinder. If, from any cause, the pressure in the cylinder should increase to a dangerous degree, the by-pass valve acts as a relief valve, and opens communication between the cylinder and the steam chamber inside the main valve. When running with the throttle closed, as your question suggests, the by-pass valves allow communication to be established between both ends of the cylinder, and the interior cavity of the piston-valve equalizes the pressure.

HAS the St. Louis and San Francisco Railway any all-steel passenger-trains in operation?

(2) What is meant by the percentage of a locomotive?—E. R., Parsons, Kansas.

(1) They have none, so far as we have been advised.

(2) Never heard of locomotive percentage.

I. A. H., Wilmington, Delaware.—We cannot recall at this writing any publication devoted exclusively to the consideration of steel cars, whether passenger or otherwise. All the standard technical publications, however, devote ample space to this subject when it warrants sufficient interest. *The Railroad Age-Gazette*, New York City, can

always advise you on any point relating to this construction if you will communicate with them.

H. M. G., Williamsport, Pennsylvania.—The late arrival of your query regarding the two heavy Mallet compounds which you recently noticed, prevents reply in this issue, but we will have the information in the next number.

WHAT must be the proportions for a single-riveted lap seam made of iron plates and with iron rivets to get the maximum strength?—M. B., Baltimore.

If the plates have a tensile strength and the rivets a resistance to the shearing equal to fifty thousand pounds per square inch, the *rivet holes* (not the diameter of the rivets cold) *should be two and a half times the thickness of the plates, and the pitch of the rivets from center to center should be 7 times, and the overlap of the plates 6 times, their thickness.*

This is the very best rule of which we have any knowledge, and we are indebted for the same to Forney's "Catechism of the Locomotive," which, although not revised for a long time, is still a standard work for locomotive reference.

F. P., Fort Bayard, New Mexico.—The expense incidental to insulating iron box cars would not be justified; in fact, the total cost of the car would be raised to prohibitive figures. All of the experiments to which you refer have been made long ago, and very largely dropped, as it was realized that nothing was to be gained.

CAN a telegraph sounder be worked on a telegraph line (a ground-circuit line) by "bridging in," as in the instance of a telephone, without cutting the wire between two stations?

(2) About what per cent of telegraphers are women?

(3) Do all railroads use the standard rules of the American Railway Association, especially the whistle, air-whistle, and hand signals?

(4) Can the air-brakes be applied on a passenger-train aside from in the cab?—L. E., Garber, Missouri.

(1) The ordinary sounder cannot be worked as indicated, and what is called a "main line" sounder is required. It might be possible to scrape the wire and obtain clean points of contact by bridging, but much better results would be obtained by cutting the line.

(2) There are no reliable statistics for this; but, after looking into the matter from all angles, we are inclined to the opinion that not more than one per cent represents the proportion at present. It appears from what information we can secure that women have been gradually dropping out in this profession during the past ten years.

(3) Yes, practically all of them.

(4) You will note the second cord in any pas-

senger-car generally arranged to run above the top window-frames and connecting with a valve placed in one end of the car. This valve surmounts a vertical pipe which is connected with the brake-pipe. Pulling the cord opens the valve and results in an emergency application of the brakes provided the valve is held open.

E. G., Monroe, Michigan.—We regret that it is impossible to answer either of your interesting questions in the form which they reached us. If you will advise in further detail regarding the electric motor, whether alternating or direct current, etc., etc., it will be quite easy to work it out for you in full. So far as the Mallet articulated compound, which you mention, is concerned, it should develop at least 2,500 horse-power under ideal conditions.

WHAT is the approximate pay of each of the following positions: machinist, roundhouse foreman, master mechanic, and superintendent of motive power?—J. W. K., Taunton, Massachusetts.

Machinist, from 28 cents an hour to 45 cents an hour, dependent on the section of the country and the agreements in vogue between the machinists' associations and the various railroad companies. Roundhouse foremen receive from \$100 to \$125 per month. Both this position and that of machinist pay more west of the Mississippi River. The salary of a master mechanic, as a rule, is about \$200 per month, and it may reach \$250 on some roads. Superintendents of motive power receive all the way from \$4,800 to \$10,000 per year, the position probably runs a longer gamut in compensation than any other in railroad service.

WHAT is the width of space that is required between the tracks of a railroad? I refer to the space between the tracks of a two-track system or a four-track system on the main right-of-way.—D. E. F., New York City.

Strictly speaking, there is no universal standard, but the clearances generally used on trunk lines in this country are 13 feet from center to center of each track, which, with the standard 4-foot 8½-inch gage, would imply 8 feet 3½ inches for the space between the tracks. Some railroads use 12 feet instead of 13 feet, but the latter will be found to apply generally.

WHAT is armored brake-hose?—B. J. B., Cleveland, Ohio.

This is brake-hose covered with a woven-wire fabric to protect it from injury. Another form of armored brake-hose is formed by winding a continuous wire spirally around it by a machine which makes the spiral slightly smaller than the tube, so that it grips tightly. Vacuum brake-hose, for vacuum brakes, is usually lined with coiled wires on

the inside to prevent collapsing, but this is not properly termed armored brake-hose.

WHAT is a radial stay?

(2) What is a stay-bolt?

(3) Please give the accepted definition for steam?—W. S., Baltimore.

(1) In many boilers the crown-sheet of the fire-box is supported by a number of rods, or stays, passing through the outside of the fire-box and secured by nuts. These stays are set radially to the curvature of the crown-sheet, hence the name.

(2) A bolt with both ends threaded, used for staying the inner and outer plates of a fire-box. The ordinary stay-bolt is screwed through both plates and its projecting ends are hammered or riveted over the plates. Flexible stay-bolts are used to afford some elasticity between the inner and outer fire-box sheets, whose different rates, or degrees, of expansion, cause numerous breakages of stay-bolts. Hollow stay-bolts are used for admitting air above the fire. It is usual to drill a one-eighth-inch hole to a depth of about three-quarters of an inch in the outer ends of stay-bolts in order to more easily discover a broken stay-bolt by the escape of steam and water.

(3) Steam is the vapor of water formed by its ebullition when heat is imparted to it. The temperature of ebullition, or at which water boils, depends upon the pressure to which it is subjected. At atmospheric pressure the boiling temperature is 212° Fahrenheit; at 10 pounds per square inch it is 338 degrees, and at 200 pounds, 388 degrees. The formation of steam in a locomotive boiler is a physical change caused by the application of heat; but there also occurs a chemical change, due to the same cause, which results in precipitating the mineral salts held in solution in the water when it entered the boiler, and forming a hard crust or scale on the plates and tubes. This scale is a bad conductor of heat, and when it forms on a plate to a thickness of one-eighth of an inch, more coal must be burned to transmit the same amount of heat to the water than before the scale formed, and the fire-box, especially the crown-sheet, is overheated to a dangerous extent.

DOES the forward truck of an engine swing laterally, and does it follow a curve, or do the inside wheels slip in the same manner as a driving-wheel?

(2) Is there any patent on a device to make the headlight follow the track on a curve? Would such a device be of any value provided it was a success?—W. K., Stillwater, Minnesota.

(1) With the exception of a few designs of rigid trailing trucks, all engine trucks are made to turn about a central pivot, or to allow for side displacement to enable the locomotive to round sharp curves. In regard to the lateral motion, this is provided for in what is called the engine truck-swing bolster, which is a bolster from which the center plate of the truck is swung or suspended by means of short links hung on pivots or pins. It enables the truck to

oscillate transversely to the center line of the engine, and thereby, more readily adapt itself to the track when running on uneven or curved track. Engine trucks take curves readily in view of their very short rigid wheel-base, there is no "slip" to the wheels of either side, so far as we have observed.

(2) No doubt there are patents covering this, because it has been much talked about as a possible improvement. Such a thing, however, would be of little practical value. The view through a curve is generally broken by the walls of a cut or objects along either side of the permanent way, and over such obstacles a swing headlight would be unavailing.



S. D., Vineland, New Jersey.—An eye test is now generally a requisite for men entering the employment of railroads as telegraph operators; therefore, we cannot quote any road where it is not practised. Please read our reply to "F. A. C.," page 121, June number, which fully answers your query in regard to the working hours for operators under the Hours of Service Act.



M. R. 'J., Allegheny, Pennsylvania.—You had best dismiss all idea of ever securing the position of division master mechanic without previous experience in the subordinate grades. We fully appreciate that this advice is discouraging after you have completed a college course with that specific end in view, but there is really nothing for you to do but enter the mechanical department of the road of your choice in some subordinate position. The fact that you are a technical man would, no doubt, help considerably in securing promotion, but the main thing to learn is how to handle men, and this can only be learned in the school of practical experience.



J. M. K., New London, Connecticut.—The outer side of rail of a curve is raised so as to carry the center of gravity of the moving object inward, and thus in a measure counteract the impulse to follow the line of least resistance—a straight line. Raising the outside rail counteracts the thrust or push of the thing in motion, converting it from a shearing force into a downward pressure, and does away with the tendency in railroad engines to either ride over the outside rail; turn over the rail itself, break it, or shear the spikes at the ties and push the rail from its position.



W. H. S., Benson, Illinois.—We can add nothing to what has often been said in these columns in regard to the merits or demerits of any correspondence school, because we have no intimate knowledge of the workings of any of them. We know, however, that they all include a thorough drill in the theory of the railroad. This is of unquestioned value, as the time has now arrived in railroading when a man is supposed to know something of what the business is based on. Your height and weight are about right for a brakeman, but your age,

twenty-seven years, might possibly be objected to. You can readily find out, however, by applying to any railroad in your immediate vicinity, as there is little variation now in requirements all over the country.



WHAT is the quickest and surest method of figuring the horse-power of an engine and a boiler?—R. R. P., Marfa, Texas.

The general formula for ascertaining the horse-power of a locomotive is as follows:

$$\frac{P \times L \times A \times N}{33,000} = \text{H. P.}$$

In which:

P means effective pressure in pounds per square inch (85 per cent of boiler pressure).

L, length of stroke in feet.

A, area of piston in square inches.

N, number of strokes (four times the number of revolutions) per minute.

H. P., indicated horse-power.

There is another "rule of thumb" that works out pretty well in stationary engine practise, but we would scarcely recommend its employment save in the roughest calculation, viz.: "Square the diameter of the cylinder and divide by four." It is astonishing the closeness of the result so attained with that from the more elaborate and accurate formula given above. A similar rough-and-ready rule for arriving at some conclusion regarding the horse-power of a boiler is to allow 10 square feet of the total heating surface per horse-power.



C. G., New York City.—The tunnel portion of the Pennsylvania Railroad's improvements in New York is under the Hudson River, the city of New York (Manhattan), and under the East River to Long Island, between six and seven miles.

(2) The Pennsylvania is double-tracked between Philadelphia and Washington, District of Columbia, and in many places where congested conditions warrant it is a four-track road. The latter practically prevails over the entire distance from New York to Philadelphia.

(3) Comparisons between the train performance of railroads are generally unfair through the inability to secure full data, hence we hesitate to make any comment on the performance of either eighteen-hour train. The Pennsylvania trains running daily between Jersey City and Chicago in 18 hours, make the 905 miles at the sustained average speed of 50.9 miles per hour, and they were on time at destination, during the year ending June 11, 1906, 328 times out of 365, or 89.8 per cent of the trips of the year west-bound, and 85.2 per cent of the trips east-bound. Of the 37 late arrivals at Chicago, 14 were not over 10 minutes late.

The New York Central reported for its trains a somewhat less favorable record; but the Central's fast trains travel at a higher speed, the distance being greater, and the trains are often made up of five, six, or seven cars for a part of the distance.



BUTCH POTEET CAME THE NEAREST, BUT HE STUBBED HIS TOE AND FELL.

SISTER.

BY EMMET F. HARTE.

Honk and Horace Undertake the Practical Education of a Young Person with a College Warble.

HONK lapped up the last odds and ends of repast from a plate sundry times filled, sighed a great sigh of repletion and leaned back, oblivious of the fact that he had egg on his chin and grease on his nose. Honk was not what you'd call an elegant eater, but he obtained good general results.

As a hen is moved to song when the picking is plentiful, so was Honk presently moved to rhapsody.

"Our work comes on apace," he remarked with complacency. "Valhalla, under our wise and far-seeing tutelage, has risen from the gloomy depths of obscurity and taken her appointed place in that bright galaxy, or lexicon, or whatever you're a mind to call it—that resplendent coterie of beautiful, prosperous, and soundly established commonwealths.

"Our work is good. We have came, saw, and conquered, as a noble old empire-builder

of some pumpkins in his day once said in a heathen jargon. Pour me one small thimbleful of that Chianti. Your health, Horace! May your girth expand until, balloon-like, you ascend to more majestic heights!"

I bowed my acknowledgments.

"Have another," I said. "And unroll me some pictures of the future; gimme some dope on the high cost of living, and tell me how I'm going to meet my next lodge dues."

Honk wagged his jaw to reply, but did not. Our little sounder awoke at that moment and butted in with a pert "v-e-v-e." We had put in a relay to the medicine-house to save steps—a resonator, on a movable base like a desk telephone, and everything quite presumptuous, right at your elbow.

I cut in before the bloke at the other end got his finger warm.

"Where've you guys been?" he asked. "Been trying to get you for two hours. Why don't you leave your address when you go out of town?"

"Rotten," I lined back. "All the world hates a liar. You've been smoking too many six-bits-a-gross joss-sticks again. Come on with your clack. We're busy in Valhalla."

"Talkee for H. Simpson," he clattered. "Is he there? O. K. Here you are: Archibald T. Manning, Jr., arrives Valhalla Tuesday, reporting to Simpson as pupil and assistant. Letter follows. Signed, A. T. Manning, third vice-president, P. and P. Railway."

Honk heard this with profound gravity. He allowed the tip of his tongue to protrude, as was his habit when thoughtful.

"Well," I said, "say it."

shorn of its husks of wild speculation and idle conjecture, as found in schools. Manning looked the world over with a calmly critical eye; with mature judgment he looked 'em over—"

"How many was there of them?" I inquired expectantly.

"Ptt!" said Honk. "Let it suffice that he decided to send the boy to me. Why? Because I can give him the cream of all the ages, boiled down to tabloid form—"

"I see," I said. "He's to be raised on condensed milk. Watch out that you don't colic him."

"Never mind," he continued. "Don't



"WE CAN CLEAR AWAY A LOT OF THIS JUNK AND MAKE PLENTY OF ROOM."

"Which?" he asked.

"You heard what he said. Old billy-goat Manning is sending his boy out here for us to raise."

"Not *us*, my dear Horace; not *us*. Me, *m-e*, me! I am to take the lad—quite a bright boy, I understand—train him, and make him into a wise and useful man. I've known it for some time. In fact, Manning and I talked the matter over some time ago."

"He wants his son to grow up a credit to his raising; a practical railroad man, sir; a man with a sound scientific education both in theory and practise, sir."

"The youth has had the advantage of a college training; now he wants the actual experience. To get at the kernel, so to speak,

worry. And don't go enticing the kid off fishing and make him neglect his work, either. If you do"—he tried to look fierce—"I'll land on you."

To conceal my alarm at his threatening attitude, I turned on the phonograph. Honk hypothecated his spleen for a chew and fell to making a blue-print of an electric crane or a cold-storage plant, or something.

Well, Archibald, junior, arrived all intact, according to bulletin, on the red motor-car Tuesday. He was a typical college candy kid, from the loud, multicolored hat-band on his cute little hat to the stickers on his spray-proof, accident-policy covered trunk. He was, to all intents and purposes, unarmed, and he rode all alone; but his

tie was tied according to league rules, and anarchy flamed in his hosiery.

I noticed, among other things, that he wore a genuine alligator belt and a shirt striped up and down in six audible colors; that he had buckles on his shoes as big as a playing-card, and a watch-fob representing Lou Dillon or some other track-scorcher in the act of eating up a mile.

By that time, Hayes, the con on the motor-car, had wafted him over.

"Simpson, of Valhalla," said Hayes in introduction, "and his coadjutant and aid de campus," meaning me. "Meet my young friend, Manning. Fine boy, men; fine boy. Goes in for athletics; tells me he nipped the world's record for high jumps and flinging the hammer. Well, so long, men; see you later."

Honk looked over our protégé with a critical eye. The array of vivid colors made him blink.

"Welcome to our fair city," he said, offering his hand. "Glad to see you. Ain't we, Horace? We want you to feel right at home. This is a big, free, wide-open country out here; everything goes with us, Archie, my son—" which was as far as he ever did get.

Archie, my son, opened his cylinder-cocks at that juncture and hooked her up to center. From that minute until his heels twinkled over the horizon homeward-bound he never let up talking very long at a time.

"Don't call me Archie," he directed. "Call me Sister. That's my pet name. Got it at college. Zisster! Blister! Siss, boom, ah! Who kills 'em off? Who spills 'em off? Sister! 'Rah! 'Rah! That's me," he said with enthusiasm.

"Nice little village you got here. Got a gym? Where's the White City? Gee, ain't there no trolley-lines? Well, what do you think of that? Where's the ball park? What league is this place in? You ought to be some jumper, on a standing broad; you're built for it. Where's the swimming-pool? I'm all over dirt. I took the class honors for the mile dash last water carnival. Ever play water polo? Gee, I'm hungry!"

That was a sample of Sister's rapid-fire conversation. He was all to the good with the parts of speech.

We bore him in state to the medicine-house, and Honk tried to entertain him with thermostats, amperes, and heat units, while I threw together a short order of "two mortgage-lifters on a raft and a pot of big muddy" to succor his inner works.

I was surprised at the interest Sister took in machinery—not. He displayed the feverish interest of the man with the hoe.

Honk's well-rounded platitudes on what the exact sciences were accomplishing in this day and age to make life worth living struck Sister with a sort of dull thud. He was as responsive to that line of talk as a grader foreman at a Schumann-Heink recital.

"I s'pose you got pretty well along in chemistry," said Honk. "Now, I—"

"Huh?" said Sister. "Naw. I never went to class if I c'd help it. But, sa-ay! D'jew ever see Gotch wrestle? Lor' lumme! Wouldn't I like to travel around with one of them all-champion combinations that take in the big cities every once in a while! Jeff and all of the big fellows!"

"Gee! I've got a good arm for my age, don't you think? Know how I got that? Ten minutes with the bells, ten minutes with the clubs, ten minutes with the bag. Haven't you fellows got a punching-bag or nothing? No gloves, either? Not even an exerciser? Well, what do you think of that? Fencing's good. I'll send and get my foils. We can clear away a lot of this junk and make plenty of room."

Junk! That was Sister's characterization of all the delicate machines, the fine, costly apparatus, paraphernalia and what not, whereon and whereof Honk had spent time and money.

Junk! Retorts, crucibles, lenses, batteries, coils, sensitive instruments so finely adjusted, some of them, that they had to be kept in a vacuum—all junk! Men have died ignobly for lesser insults than that in this Western country.

Honk sat, stunned and speechless, while Sister ate and conversed. He praised the cooking, and mentioned that his digestion was perfect. He related the history of his young life and quoted statistics, exhaustive and intimate, gleaned from the annals of athletics, beginning with the ancient heroes of the prize-ring and ending with racing aeroplanes for sweepstakes. He had the data right on tap.

Football and baseball thrilled the harp-strings of Sister's soul. When he wandered verbally into that field, his eyes glistened with the moist glisten of the soul-rapt. He was a devotee. When I agreed with him that the man who knocked a high drive over the right-fielder's head when the bases were full was greater than he that taketh a city, he chose me for his chum.

"What we want to do right away now,"

he said, "is to get busy and organize a team. I'll pitch. You can play short. Lengthy here can hold down the initial pillow. Sa-ay, we won't need no outfield. I'll fan 'em just as fast as they come to bat. Man, I eat 'em, that's all! Chirk up, old Glumsy, why so sober? You ain't broke, is you?"

This last to Honk, who was looking both pained and fatigued.

The time passed jerkily that Tuesday. Sister led the conversation at a long gallop, taking the hurdles with ease. He was a steeplechaser with words. Railroadng, engineering, mechanics, or the discussion of arts and sciences, the sordid pursuits of men in winning the world from savagery, he vaulted lightly or side-stepped.

On the other hand, the thought of turning Valhalla into one long athletic tournament caused him to sound the view-halloo. Sister was the original Olympian gamester.

Honk appointed me a committee of one to show Sister around. We went out to the power-house first. While there we signed Butch Potet for third base.

At the water-works pumping-station we took on two fielders and a catcher. The remainder of the requisite quota, with six for extra emergencies, were acquired here and there—at the cement-mill, from the street-cleaning corps, the mercantile establishments, and the City Hall.

Ere twilight stole shadowy and athrill with bug-music across the far-stretching sweep of the plains he knew many, many citizens by their front names, all the streets, had selected the site for the ball park, matched one of the stokers at the power-house against a brick-molder for a ten-round bout for points at an early date, and had aroused public sentiment to such an extent that they were circulating a petition to buy suits for the ball team.

We returned to the medicine-house, Sister effervescing, and yours truly a bit fagged, considering that he had the task of getting supper staring him in the face, but showing strong and sound of wind.

Honk heard our reports of progress without comment. He couldn't have inserted a word, anyhow, into Sister's solid stream of talk without the use of a hypodermic.

Once, while our garrulous visitor was wetting his dry pipes with a drink of ordinary water, Honk slipped in a remark deftly.

"We'll rise early to-morrow and get our young friend lined up at his work," he said.

"What's that?" asked Sister. "Work? What kind o' work?"

"I thought you could carry a chain for me," said Honk mildly. "I'm going to survey a plat in the west end."

"Won't have time to-morrow," said Sister. "I've got to get the team under practise. Fatty here can help you out, maybe. Every day put in in practise now is that much to the good. To-morrow'll be my busy day, I do reckon. We got to get in shape now in short order if we expect to make a showing."

Honk got out his letter from Manning, senior, and reread it carefully. He looked as if he harbored suspicions of having overlooked a bet or two. Afterward he made a pencil notation—it was useless to attempt an audible comment while Sister was in eruption—and slipped the document to me to peruse. I went out and read the same under an arc-light.

"A bum steer," Honk had annotated. The letter went on to state, in the sparkling, breezy style of a stock-market report, that the consignment submitted was sound, staple, and unadulterated; if unripe, it would mellow readily in time; it was first-class material; all it needed was a few skilful whacks with the chisel, when lo!

There you'd have a masterpiece! It was a chip—off the original chunk, as it were. Manning, senior, took occasion to fling a few bouquets on his own lawn in passing. I suppose for the benefit of the fair one who took the notes. "M. B." was her initials down in the corner.

I agreed with Honk. It was a bum steer. Sister was raw material, all right, and of standard brand; but, as a delver and digger among delvers and diggers, I feared that he might quarrel with his tools. Work? Sister? Alas and ahum! It was even as he had said—he was too busy.

Honk and I seized an opportunity next morning while Sister was unpacking his bats and balls, catching-gloves and other accouterments, to confer about it.

"Why, that old rummy told me that his kid was a regular greedy worm after knowledge; that he made a hobby of mechanical and engineering subjects. He said the young ruffian set him back a tidy sum every month for midnight gas consumed while studying books on electricity, steam-power, and kindred things.

"Ptt! He was reading the sporting news, I bet you. Why, that young barbarian don't know a pin-valve from a monkey-wrench! Make an all-round railroader out of him? Ugh!"

"He's only about nineteen," I said. "Just out of the top-spinning class. What do you want for a nickel?"

"Well, let him go back and put up his ping-pong court and his tiddly-wink table at his pa's, then. I don't want him around here bothering. He talks too much with his mouth," Honk returned with gloomy pessimism.

So Honk washed his hands of Sister; but Sister didn't pine away, for all that. No,

Sometimes for hours this revel lasted. Honk began to wear a hunted look, inasmuch as the phonograph couldn't drown Sister out.

So he wired Manning, *père*:

Your son spends his time playing ball and evading work. Instruct.

The old gent replied:

Won't hurt him a bit. He studies too hard, anyhow. Glad he's taking a little relaxation.



THE OLD MEDICINE-HOUSE HAD ALL THE EARMARKS AND OUTWARD SEMBLANCE OF A HOSPITAL FOR THE VIOLENTLY UNHINGED.

sir! He gathered together his ball team and practised them early and late. From red dawn till hen-roost time they clouted the leathern sphere, ran, whooped, made double, triple, and even quadruple plays, stole bases, and developed team work until the far hills reverberated with their din.

Sister showed up three times a day, puffing and sweat-streaked, long enough to throw in a few scoops full of sustenance; then he was off again, gone again.

When he had a few minutes to spare, he organized a track team, a basket-ball league, and arranged a swimming contest in the reservoir. Evenings he regaled us with the wild, mad, bewildering story of it all.

Sister tore out one morning and caught the motor-car for Millardsville by a hundred-yard sprint, just after it pulled out, and Valhalla seemed like a dream till afternoon.

At three-thirty, however, he returned to us all safe and sound, and announced that he had matched a game with the Millardsville aggregation of swatters, to be played on the Valhalla diamond Saturday afternoon, by the grace of a benign Providence and a republican form of government, for a purse of one hundred dollars, winner takes all, world without end! Sa-ay, mister, and what do you think of that?

He got to rehearsing different varieties of college yells and singing topical songs at the

top of his voice after supper, until the old medicine-house had all the earmarks and outward semblance of a hospital for the violently unhinged. Honk finally fled wildly into the night, nor returned until morning. I think he slept out in some remote spot where he could hear himself think.

I saw him for a brief period Friday, the day before the big game. He had an expression of gloom about him.

"Horace," he muttered brokenly, "I'm taking a little trip South to look over the sugar-beet prospects; expect to be away several days. If—I mention it incidentally—if anything should happen to this loud-mouthed young chum of yours, if he ruptures a blood-vessel while attacking some world's record, or gets himself drowned or electrocuted, or blows up, you may reach me by heliograph about nine any evening. Not that I apprehend any such good fortune, but I would like to know it if it should occur."

"What? Not staying for the game?" I asked.

"Nup," he said. "Let chaos reign without me. I have already strangled on my cup of joy and blew a bean up my nose, figuratively."

He borrowed my bicycle and what tobacco I happened to have, and pedaled moodily away.

Saturday came, cloudless, and big with portent; likewise came the Millardsville team and two hundred rooters, profligate of noise and raucous. It was a stubborn struggle. The Millardsvillians had it in for Valhalla.

I couldn't say that I had noticed it before, but it appeared very clearly then that they were frantically jealous of our progress. Valhalla had outstripped them in the race for supremacy, and it stuck in their crops. They came over to belch up the venom of their disgruntledness, as the poet says.

Well, Valhalla turned out freely to see the sacrifice of our neighbors, I'll say that. The mayor declared a half-holiday, and pitched the first ball himself.

Before proceeding further, I may remark that the particular swatter at the bat at that juncture knocked that first ball high and far, and made a home run on it, whereupon two hundred odd voices rose in a clamor of whoops, jeers, and ribald laughter.

Sister pitched the rest of the game. Besides that, he coached. At other and sundry times he wrangled with the umpire, certain members of the opposing team, and, being

captain of the home outfit, sassed his own men mercilessly when things went wrong. Things went wrong in disastrous succession.

The Millardsvillians bu'sted the highly elaborated curves of Sister smack in the face, and knocked them in all directions. It was singles, two - baggers, home - scampers, and then, *gr-r-r-wow!* Whee! Whoopee! I never saw a more persistent and irritating set of yellors in my life.

Valhalla got to bat after an interminable time, and lasted until three men could fan. Wow! Wow! It was 4 to 0, 6 to 0, 9 to 0, 17 to 0, 20 to 0—Valhalla holding her own nobly. Sister's team started without a score, and never went back of that.

Nine delirious innings were played, and never once did a Valhalla wigwagger get to first. Butch Poteet came the nearest; but he stubbed his toe and fell, so they put it on him before he got untangled. Sister got so wild at the last that the catcher couldn't reach his balls with a pole. He lost his temper, made overtures to fight his baiters, frothed at the mouth, grew hectic with rage, and had other symptoms of disintegration, all of which was greeted with "Whoop!" "Whoopee!" "Wow!"

"What's he goin' to do now? Look at that one! Roll it across! Whoever told him he could pitch? Oh, mama!" and other compliments.

The visitors lambasted the ball into the outfield and chased in five runs during the ninth, struck out the requisite number of Valhalla's dispirited unfortunates to put them out of business, and the slaughter was finished with a total score of twenty-eight to what the goose hides in the hedge-row.

Pandemonium came down off her perch, accompanied by all her riotous cohorts, and the ear-splitting uproar that resulted would have awakened the inmates of an asylum for the deaf and dumb. They not only smeared on the smartweed, but they insisted on rubbing it in. Of course, the Valhalla backing felt somewhat aweared, especially those who had put up the exchequer.

I knew the weather indications. Gathering clouds, ominous calm, ruffled by intermittent gusts. A hurricane was brewing.

Though I deeply admire a fight—if I have a good seat, well removed from behind a post, and the film is clear and properly shown—I argued it over mentally, and decided to tear myself away. Getting whanged over the coconut with a ball bat looks funny, but it jars on the man that furnishes the coconut.

Well, they got into it all right, just as I expected. I found that I could see and enjoy it far more perfectly from the roof of the medicine-house, aided by Honk's binoculars, than if present at the actual seat of the struggle. There were several rounds, with all the way from one to ten engaged; nothing studied or scientific about it, just loud re-creation, blows, clinching, kicking, biting, butting, and gouging.

It was the primitive struggle of the young animal, in which the sharpest teeth and the longest claws prevailed. Millardsville, being the least removed from savagery, whipped, of course.

Those farmers fought like they flailed the golden grain, or cleared the forests—by main strength and awkwardness. All differences that admitted of settlement by bloodying noses and blacking eyes being adjusted, the tide of battle ebbed, and the rabble, friend and foe alike, turned its attention to Sister.

Perhaps he lacked that consummate tact and aplomb that comes with age and experience; maybe he failed to say his say in the right tone of voice which the occasion demanded; anyway, the outfit mobbed Sister finally.

They mopped up the ball-grounds with him; they rough-housed him with horny, ruthless hands, tore his new ball-clothes, scratched mystic symbols on his face with finger-nails that had never been properly sterilized, and clawed out snatches of his hair for souvenirs, besides bruising and pummeling him something scandalous to see.

I was on Sister's side throughout; never deserted him for a minute. Others, more indifferent to his fate, and less intrepid of spirit, might have climbed down off that car-roof and dismissed the whole affair with a snap of their fingers, but not me.

I watched until they'd pounded Sister into a pulp. I never backed down an inch till it got too dark to see.

Sister limped in soon after sundown. He was contused and battered beyond recognition, but unquenched of soul and filled with a malignity worth paying admission to see. He held a four-hour autopsy, with some stunts in diagnosis, vivisection, post-mortem examination, and free clinic intermingled.

"You saw how I put 'em over, Fatty! You know that catcher we had couldn't catch a cold! And them decisions of that umpire! Waugh! Fatty! Waugh! Why—and then about sixty-five of them pitched onto me.

"I'd have licked every one of 'em, too, if they'd've come one at a time. As it was, they didn't put nothing on me! I guess not!

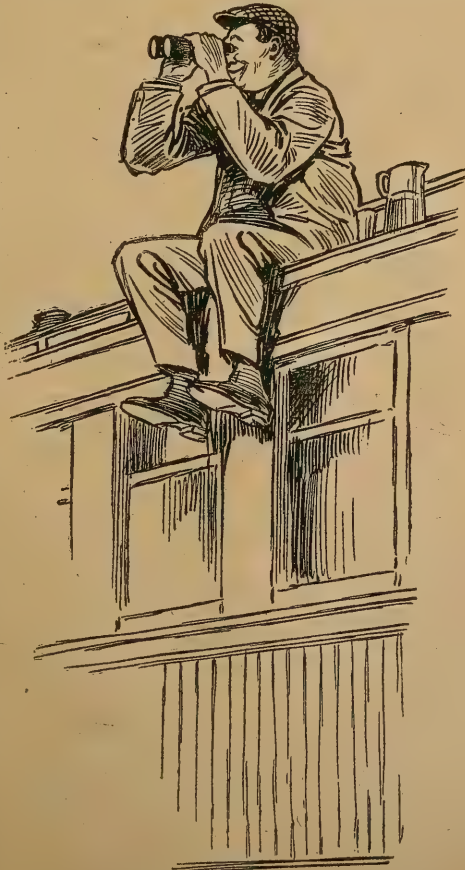
"Sa-ay, this is the star town for howlers. This is a yellow-dog settlement for true! Can't play ball, can't play nothing! Why—ugh! Ain't you got no kind of liniment? No court-plaster, either? Lookee here

where I skinned my knuckles on some Mick's mug. Gee, this town gives me a pain! I wouldn't live here if you'd deed me the whole bloomin' graveyard. Why, this town is dead, and don't know it! Take it away!"

Four hours of that, by the cuckoo-clock, clacked Sister. Didn't annoy me, though. I slept through at least half of it. When it came my regular bedtime I roused up and found him packing his steamer trunk.

"Don't be rushed off," I said, yawning.

"Lor' lumme!" he said. "I ain't. I've stayed a terrible sight longer now in this dump than anybody'd've thought I would. Why, man, sa-ay! Would you think I'd waste very many minutes in this gone-to-seed, noisome, putrid, and sickening hole?"



I WAS ON SISTER'S SIDE THROUGHOUT.

"Well, I don't think! I should hope not! The only reason I ain't on my way, Fatty, is because there ain't nothing moving. You're all right, you and Granddaddy Longlegs; I

"How cheerful! Wouldn't that start your nose to bleeding from sheer joy?"

A letter we received after an interval from Sister's indulgent father came very near



"AND THEM DECISIONS OF THAT UMPIRE!"

ain't saying anything against you. But you're easy to please if you stay in this seed-wart of a town."

"Yes," I agreed sleepily. "You're right. This town wouldn't suit you for a permanent home." And I bade him good night.

Sister and his luggage passed outward and onward from Valhalla while the forenoon following was yet young, and no pensive band of admirers saw him off.

He had come like a comet out of the void, tarried in our midst briefly and with some display; now he was receding, slightly disfigured, but possibly not permanently squelched. Oh, no! He would probably break out in a new place, like a pimple that's had a backset.

That night I heliographed Honk to come back from the beet-fields. The canary had squeezed through the wires and flown. He came on foot, trundling the bike, which had suffered a punctured tire, as usual.

No disturbing shadow marred the peaceful serenity of his smiling countenance, however.

"Is he gone for good?" he grinned.

causing a couple of heart-failures though, and that's a fact if I ever stated one.

"I take this opportunity of thanking you for what you did for the boy," the old gent had dictated to "M. B." again. "While he was but a short time with you, his genius seemed to need just that slight impetus. The boy inherits his talent, of course; but he seemed to need the stimulating influence of a mechanical environment, such as he found with you. How is that for a neat way of putting it, eh?"

"To return to the subject, my son has devoted himself very assiduously to his experimenting, and I have the pleasure of announcing that he has perfected and to-day received his letters patent to an invention for which the world has been waiting breathlessly. I refer to no less a marvel than the wireless telephone—perfect, practicable, and complete—"

"Air! Air!" cried Honk at that point in the letter. "Gimme air! Where am I?" And all that night he tumbled, wheezed, and muttered in his sleep.


Don't shoot the paymaster, he's doing his best.—The Grouches of a Ham.

The Greatest Battle-Ship in the World.

BY ARTHUR B. REEVE.

IN the building of a great battle-ship there are many points of parallel interest to railroad men with the construction of a locomotive. Both are the crowning features of the use of iron and steel as applied to motive force on land and on sea, respectively. Both typify, in their respective spheres, man's utmost in speed and power. Essentially, also, their destinies are linked together, the one guaranteeing the safety of the mighty commerce built up by the other, and, at the same time, dependent on that commerce to originate the wealth that renders its own existence possible.

The Florida and a Hundred Articulated Compound Engines Compared. How the Mighty Commerce Protector Compares with the Commerce Creator.

MAGINE a monster as heavy as a hundred and two of the famous Southern Pacific Mallet Compounds—No. 4000, which holds the record as the heaviest locomotive in the world. Let this monster be nearly as long as eight Mallets, as wide as ten, as deep as three, as costly as two hundred and twenty—and, then, suppose it floats.

There you have our great battle-ship Florida, which was recently launched at the Brooklyn Navy-Yard, where she was built, the latest word in war-ships, which, for a time at least, will be the most powerful fighting machine afloat on all the seven seas, literally a *super-super-Dreadnought*. Just to get some idea of what she is, here are a few simple comparisons which will appeal to any railroad man:

A railroad engine carries one engineer and one fireman. Here is a great war engine which will carry thirty or more. Altogether, her complement will include officers enough to nearly fill two chair-cars, and the crew would fill fourteen day-coaches, which, alto-

gether, would make a pretty respectable passenger-train.

An average engine carries from twelve to fifteen tons of fuel. The coal to fill the bunkers of this leviathan would be sufficient for considerably over a hundred locomotives. It would require fifty gondolas loaded to their full capacity of 100,000 pounds to transport it. Besides that, this ship will carry four hundred tons of fuel oil, which is about thirty-five times that carried by the largest oil-burning locomotive, No. 4000, which carries 2,800 gallons.

All the new vessels in the navy now have provision for storing oil, and in the future it will be used extensively. In emergency, the oil can be sprayed over the burning coal, but, under ordinary circumstances, the two forms of fuel can be used interchangeably as dictated by supply. Under full steam, the coal consumption will be over eighteen tons an hour.

Just to keep this great machine going for an ordinary piping year of peace will require an expenditure that would suffice to purchase sixty Moguls, or close to a million

dollars. Her coal alone will cost over a dollar a second while she is running.

A broadside fired by the Florida will be nearly half the weight of a steel car, and will cost more than a Pacific type passenger engine with a couple of box cars thrown in incidentally to average things up. To be more exact, a single broadside will weigh nearly 20,000 pounds, and will cost over \$20,000.

Each of the big twelve-inch guns weighs almost as much as a Pullman, and is almost as long—fifty tons and fifty feet. These guns will throw a projectile weighing about half a ton twelve miles, with an elevation of twelve degrees, the highest on shipboard.

The muzzle velocity of such a projectile is 2,250 feet a second. One of the highest speeds for a railroad train recorded for a distance is given in the *World Almanac* as 120 miles an hour, two miles a minute. The speed of the projectile is thirteen times as great as that.

When such a weight, traveling at such a speed, strikes something in range, things are likely to happen. In fact, such a projectile will pierce fourteen inches of Krupp steel at 3,000 yards, which is the equivalent of forty-two inches of wrought iron.

One such projectile costs over five hundred dollars. Torpedoes are five times as expensive; and the smaller guns, which can throw hundred-pound shells at the rate of fifteen a minute, cost in proportion. To sum it all up, the Florida can throw twenty-five per cent more than any other ship afloat in a given time—she is a navy in herself.

Yet they are not satisfied with making even twelve-inch guns. Great Britain is building thirteen and one-half inch rifles, and we are experimenting with rifles of fourteen inches.

The Florida's Vitals.

Tucked away down in the hold, protected on every side by the toughest armor made, are the boilers of the Babcock & Wilcox type, feeding ten four-screw Parsons turbines, each turbine having over 40,000 blades. The engines of the Florida are constructed to develop at least 28,000 horse-power.

One of the Erie Mallet compounds, worked to its full capacity, will haul 225 loaded cars of fifty tons each on a level track at fifteen miles an hour. It would then be exerting 4,000 horse-power. The horse-power developed by the engines of the Florida will

be equal, at the very least, to seven of these Mallets.

If it were similarly applied to hauling loaded cars, as indicated above, the train would be twelve and a quarter miles long. As the North Dakota, the next largest new ship to the Florida, really developed 35,150 horse-power, or over 10,000 more than was the minimum requirement, it is confidently hoped that the Florida, when she makes her trial trips, will do as well, and perhaps reach 38,000 or more. That would be eighteen times the horse-power of the heaviest of the New York Central's new electric locomotives, which are among the most powerful of their kind.

Her Great Speed.

As for the speed with which this vast mass of steel will travel, it is built to make twenty-one knots an hour, which is the equivalent of about twenty-four miles. But it is expected by the authorities that it will exceed this speed, just as the North Dakota did when she actually developed 22.25 knots. Perhaps the Florida, which is designed to be three knots faster than her predecessor, may develop up to twenty-five knots an hour, which would mean the equivalent of twenty-nine or thirty miles. When one considers that such a great weight is being propelled through a very dense medium—water—the comparison of speed between a battle-ship and a locomotive is not so greatly to the disadvantage of the battle-ship, after all.

These comparisons will add interest to the story of the putting together of such a huge mass of steel and iron as the Florida. It was an undertaking that could have been accomplished at only a very few places in the world. In some respects it was similar to assembling the parts of a great locomotive, though it took over a year to do it, and required a much more expensive plant.

Perhaps the most crucial moment was when this terrific mass slid down her mammoth tracks into the water at the Brooklyn Navy-Yard on May 12. From the very outset, those vital seconds had to be considered.

Nowadays, the launching of a great ship has to be figured out completely, long before a single rivet is driven home, just as the tractive effort and weight on the drivers of a locomotive are known before a dollar is laid out on her. Every contingency must be guarded against, for the sagging of an inch at this critical moment would endanger, if not ruin, the ship.

Therefore, first of all, the ground under the Florida was made as solid as that under a sky-scraper, or the great new terminals of the New York Central or Pennsylvania, in New York. This was accomplished by driving in heavy piling, and the use of plenty of concrete and masonry.

On this base the keel-blocks were laid at intervals of three or four feet, rising at what a railroad man would consider a frightful grade from the water's edge—thirty-five feet in less than six hundred. That brought the bow, which pointed inshore, high up in the air. The keel-plates were laid upon these keel-blocks, together with the parts immediately connected with them, like a great backbone.

Next the giant steel frames and ribs seemingly sprouted out from the keel overnight. It was by adopting this idea from shipbuilding that the new all-steel passenger-cars of the Pennsylvania were evolved, with their backbones and ribs of steel.

Gradually the hull took its form. The air resounded with a rat-tat-tat of pneumatic hammers and the clink of bolts, as strip after strip of steel was hoisted and fitted into place under the direction of the naval constructors.

Forts Within a Fort.

The gigantic traveling cranes, two of them, which carried on this work were operated along an aerial cantilever viaduct in the open air, just as they are in a locomotive or car shop. These great carriers had a hoisting capacity that would enable them to pick up an ordinary locomotive and run away with it, perhaps toss it in the sea at the shore-end of the ship-yard.

To the ribs the binding ties of the bulkheads were riveted—the deck beams, and the various other parts. The heavy, red-painted steel plates of the hull, each lettered and numbered, were swung, one by one, to their appointed positions, sheathing this skeleton in a skin of steel with almost magical quickness.

The tremendous castings—such as the stem that gives shape to the prow, the stern-post which carries the rudder, and the propeller-struts—were lifted into place and riveted. Every one was as carefully tested as the plates that go in to a boiler; they may have to resist an even greater pressure some day when one of those twelve-inch projectiles come in a head-on collision.

Meanwhile, the double bottom was laid,

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the great bulkheads built up, and the many compartments of the ship constructed. Inside the mass itself, like a tower, each turret foundation rose upward to the level of the deck. Simultaneously, on the ground alongside the ways, the turrets themselves were assembled.

Each of them cost over four hundred thousand dollars—about what would buy two trains of 225 gondolas, hauled each by an articulated compound. A large part of the heavy belts of armor was also placed on the ship before she was launched. As it grew, the framework and the outside plating were held upright by stout shores at innumerable points, each of which bore a part of the enormous dead-weight and relieved the keel of it.

Day after day the great steam crane traveled up and down beside the hull. Men worked their shifts, men of all trades, over a thousand of them. Day after day naval constructors followed every detail on their blue-prints in the prim government offices, checking every minutest detail even to the uttermost of the millions of bolts.

So the ship grew until the vast, incoherent network of plates and beams took on a coherent personality, like that which grows out of the plates and tubes that make a huge locomotive something more than a mere copy of Blue-Print No. So-and-So—and at last we have the Florida.

Here are a few of the figures translated into railroad comparison—just some of the more important, for the whole mass in the naval constructor's office is a book almost as thick as a dictionary and with almost as many pages. No one except the initiated is allowed even a peep into it; for, though you may go down and watch the ship building in the yard, the real and valuable facts are jealously guarded, and you are permitted to copy only certain selected items. That book would be worth thousands of dollars to a rival nation.

This was about all, in the way of facts, that the naval constructor was willing to divulge:

The length of the water-line is 521½ feet—about the length of an engine, tender, and seven day-coaches.

Breadth of load, 88 feet 2½ inches—wide enough for half a dozen railroad tracks.

Mean draft, 28 feet 6 inches, which means that the part under water is high enough for the clearance of three sleepers one above the other.

The ship is being fitted as a flag-ship, and,

among other things, will carry metal furniture.

The normal displacement is 21,825 tons, with a two-thirds full supply of stores and fuel and a full supply of ammunition, or a full load displacement of 23,033 tons—something like the weight of two hundred consolidation engines. Speed, twenty-one knots.

Indicated horse-power of propelling machinery on trial, 28,000—which will be exactly seven times the horse-power of the new Pennsylvania electric locomotives typified by No. 3998.

Bunker capacity, 2,500 tons of coal and 400 tons of fuel oil, to carry her at ten knots an hour, 61,720 knots in twenty-eight days—a run which, if by a stretch of imagination you can conceive as being made overland, would mean from New York to Seattle, to San Francisco, and back to New York again, without taking on fuel.

Electricity the Power.

Almost everything except running the ship is done by electricity, the search-light and electrical machinery alone costing \$250,000.

Bearing in mind that guns are really nothing but apparatus to propel projectiles, freight carriers, each with its load of explosive to be detonated at the end of its journey, the batteries will consist of:

Main: In turrets, ten twelve-inch breech-loading rifles, costing \$65,000 each, and with its mounts, etc., \$265,000, equal to nine of the Erie's articulated compounds in cost.

Broadsides: Sixteen five-inch rapid-fire guns, which use up half the price of a flat-car every time they are fired.

Secondary: Four three-pounders, semi-automatic; two one-pounders, semiautomatic; two three-inch field-pieces, and two machine guns.

Torpedo tubes: Two twenty-one-inch, submerged.

In this connection it may be mentioned that the new fourteen-inch gun has a muzzle velocity of 2,800 feet a second, sixteen times the speed of a two-mile-a-minute train.

Armor, eleven inches thick.

Two latticed masts used by range-finders, each worth \$15,000, or about the cost of a ten-wheel locomotive.

Two funnels, seventy feet high, about as long as a sleeping-car turned up on end, and with almost as great a diameter.

Boilers: Babcock & Wilcox, with twelve water-tubes.

Turbines: Four-screw, Parsons type, ten

in all, six for going ahead and four for going astern. They will make the great nickel-plated propellers revolve 275 times a minute.

Machinery and boilers cost as much as ninety consolidation engines.

Contract price for hull and machinery, \$6,000,000. The average cost of locomotives last year was 8.2 cents a pound. The cost per pound of the Florida is twice that.

So much for the figures.

At last came May 12, the day for the launching, the day when the great ship was practically two-thirds done. Everything had been calculated out to a nicety, nothing omitted.

The launching itself was by far the most ticklish piece of work of the whole business, for the larger the ship the more difficult it is to get her into the water. Launching is practically balancing this mass of metal on two broad wooden tracks and sliding it down into the water.

A word will not be amiss comparing the Florida with what the rest of the world can offer. In October, 1905, directly after the Russo-Japanese War, there was a most mysterious show of activity at the British navy-yard at Portsmouth, England. No one could fathom what was doing.

There, hedged in by the utmost secrecy, the keel-plates of a new vessel were being laid. Foreign navies tried their best to discover what the British admiralty was up to. Gradually, week by week, hints and rumors and facts leaked out. Great Britain was applying the lessons of the war.

For exactly one year after that date not an important new ship in any navy in the world was begun. The world waited to see what Great Britain would do.

Only the Beginning.

Then, twelve months after the keel was laid, the great Dreadnought slipped into the water, a huge 17,900-ton, all-big-gun battleship.

That was the lesson of the war—strength plus simplicity. At once every nation recognized it. Germany absolutely revolutionized her whole naval policy in a night from complexity to simplicity. France, Japan, all followed.

Nor was America behindhand. We began slowly. The Michigan and South Carolina, of 16,000 tons, were begun in 1906. Then, in 1907, the North Dakota and the Delaware followed, with 20,000 tons. In 1909 we began the Florida and the Utah, of 21,825 tons.



Observations of a Country Station-Agent.

BY J. E. SMITH.

No. 27.—Schwartz Relates Further Troubles, Especially with a Female Poet and a Phonograph, While Trying To Purchase Property for the Right-of-Way.



WHEN a railroad wants a piece of real estate for some improvement," continued Schwartz, "the price goes up with a whoop. Over at Ren-

ner, we wanted to erect a nice passenger-station of stone and brick, with curves, minarets and porte cochère, fancy enough to do us credit and make the town proud. To complete the plans we had to have a house and lot that was on the corner of a street and the railroad.

It wasn't much of a house, and the owner had had it in the hands of a real-estate shark for sale for a number of years without a buyer. The owner would have sold it any day to John Doe or Richard Roe for a little down and payments to run ten years. He would even have traded it for the semiarid region of Texas.

Some way, in the early formative stage of our plans, the owner got wise that the railroad would want that piece of property for its new passenger-station, and he doubled his figures at once. Thereafter, every morning, the first thing he did after getting out of bed was to add another ten per cent to the price.

A railroad cannot successfully conduct real-estate transactions openly. Operations

are usually in the name of a third person, and the railroad remains unknown until the deal is closed.

Nothing compromises the intelligence of a good citizen so much, or reflects on his native shrewdness so severely, as to sell his property at his own figure, and then wake up to find that a railroad company was the real buyer.

Maud Muller's "might have been" isn't a circumstance to the poignant regrets that rage in the breast of this upright citizen under such conditions.

When he sold to a private citizen, he congratulated himself on a neat deal. When he learned the transfer continued to the railroad, he was buncoed! held up! short-changed! and whipsawed!

He could have gotten double if he had been wise enough! That's a sad reflection, so he kicks himself off the premises.

It isn't the matter of actual values, but of the attitude of the owner.

In the eyes of *hoi polloi*, all railroads are rich and powerful. They not only pay fancy dividends and interest, but their strong boxes are bulging with ducats, and it is the sacred duty of the private citizen to relieve the pressure on the box in every way he can.

Every town wants all the railroad improvements it can get. It takes ground for im-

provements, and the individual owns the ground. The town boosts and helps along collectively, but the individual doesn't budge.

He has certain conceptions of patriotism and of doing things for the good of the community, but it does not reach his pocketbook, lessen his idea of the value of his private holdings, or his yearning for his country's coin, so he holds tight.

His neighbors call him a "hog" and a "fossil" for blocking an improvement. They argue with him, then they abuse him for his lack of public spirit.

He answers by raising his price another twenty-five per cent.

No matter how valuable the proposed improvement is to the town, or how badly it is wanted, some man must have his price out of it.

This is the reason a railroad must cover up its plans and operate by proxy.

I heard a sad story the other day of how an ungrateful railroad "put one over" on a trusting but thrifty attorney.

It was a case of building a second track, adding some sidings, and widening the right-of-way.

The attorney got into it, in a professional way, that the railroad would have to have a row of lots through his town, some of them improved.

The attorney did some work by proxy. He found the funds, and had his nearest friend buy the lots. Then he put them up to the railroad at a handsome advance.

It was an artistic piece of work, and shows what a prudent man can do to a railroad when he gets a piece of information in advance. But there came an unfortunate hitch. The railroad did not like the figures.

It had another plan it was working out that the attorney did not know of. It made a cut-off east of the town, saved a half-mile of running track, and reduced the grade.

The attorney still holds a row of properties, somewhat dilapidated and ill-kept, abutting the railroad. He is still struggling for money to pay the loan he made to buy them. The railroad will never need them.

The moral is that money should not be invested on advance information of the improvements a railroad is to make, for stuck away in a certain pigeonhole is another plan—and another. So it isn't a dead shot until the last minute, and a wise man will never speculate on anything but a dead shot.

Schwartz's deals with farmers for narrow strips along the right-of-way for the purpose of the second track was a different proposi-

tion. There was no secrecy about it. All the farmers concerned knew just what he wanted, and why. So there was no chance for anything only direct bargaining.

Schwartz had one advantage. If he could not close the deal his company could take the land, anyway, under condemnation proceedings. That was the closing argument. Even this was disputed and contested.

But in the miscellaneous assortment of land-owners, Schwartz found some strange characters with peculiar ideas and prejudices.

Schwartz had no time for the fine art of bargaining. The railroad was in a hurry. Construction work was pressing. Contractors were coming on, and it was up to Schwartz to produce the *terra firma* for them to operate on.

It has always been the policy of Schwartz's road to be fair and just in its dealings with all the people living along the line, and it prided itself on the good-will fostered thereby.

Schwartz is a pessimist. He ranged up and down among the railroad's neighbors all summer, in close personal contact, and he has no faith in the friendship and good-will the road had so assiduously cultivated.

"It's like the tail of Halley's comet," said he. "It's diaphanously thin. One cubic mile of it can be packed into a snuff-box."

A few miles out a small farm touches the railroad. It is owned by a widow and her son, now a man of twenty-five. The company wanted a twenty-foot strip of their land.

On a warm day Schwartz drove out to their house.

The son was lying on the grass in the shade of a fine oak-tree in the front yard. He was a pale, anemic young man, with only ten or twelve red corpuscles to the fluid ounce. He had dreamy eyes, a far-away look, and a lifeless indifference to worldly things.

Schwartz extended a cordial greeting. The young man returned it with caution. A dog, with a sniff of suspicion, made a close inspection of the visitor, and seemed to suspend judgment.

Schwartz produced a blue-print and explained the object of his visit. The young man looked it over with about the same interest that a man takes in looking over the asset figures or the mortuary table produced by a life-insurance agent.

"Well, you'll have to see ma," he said at length. "It's just as ma says. But she hasn't any land to sell to the railroad."

With this he relapsed into his former in-

difference, and directed his attention to the farm journal he had laid aside when Schwartz came up.

"She's in the garden."

"Will you call her?"

"You had better go out there where she is if you want to see her."

"Ma" was transplanting cabbage-plants.

be the half-gallon can of sauerkraut he would buy of his grocer during the Christmas week.

"You see, we've got to have the land," explained Schwartz. "We are double-tracking our line, you know."

The woman transplanted with renewed industry, but made no reply.



"THESE CABBAGE-PLANTS HAVE GOT TO BE SET OUT TO-DAY."

She was an angular lady of sixty-five, and had a fighting face.

"I ain't got nothing to sell," said she tartly.

"These cabbage-plants have got to be set out to-day because the sign is right, and I haven't any time to waste."

With this she gave an angry poke in the dirt and placed a tiny sprout.

Schwartz stood by, and, as there followed an embarrassing silence, he busied himself making a mental calculation that in six months hence that tiny, wilting sprout would

"We can take it, anyhow, by having it condemned by the court, Mrs. Weaver, but we don't want to resort to that."

Schwartz paused, but no response.

"We want to come to an agreement in a friendly way. We do not want to go to court if we can possibly avoid it. There is nothing in it for either of us, Mrs. Weaver, to pay big fees to lawyers and to be hauled around by the sheriff."

With this lugubrious prospect Schwartz rested his case for a moment, but the only effect was to speed the cabbage-planting.

"We want to be fair with you, Mrs. Weaver, and we will pay you more than the land is actually worth. We will build you a good, new fence on the new line, and will look out for the drainage."

The full details of Schwartz's proposition carried him down one row and half-way up the next. He explained and repeated and emphasized, but he never drew a word or a hint.

"I'll come back again, Mrs. Weaver," he said finally. "You think it over a few days, and you can let me know when I return."

Schwartz paused a few moments with the son under the oak, and talked of crops, the weather, and the prospects in general.

"Nice weather we're having," he ventured.

"Yes, sir."

"Still we need a good shower."

A nod of the head.

"We don't have any more real crop failures in this country, do we?"

A negative shake.

"A man who owns a piece of land like yours is well fixed for life," continued Schwartz, with the air of a philosopher.

"Son" neither confirmed nor denied.

"I told your mother I would be back again

next week. I asked her to let me have her answer. We must know what we can do. You can talk it over with her. I will see you again. Good-day!"

"Good-day," replied son listlessly.

Schwartz drove away.

A week later, to the moment, he returned.

In the meantime, son had gone to the old leather trunk in the attic. He searched among the old papers of deeds and receipts left by his father, who had departed for Canaan's shore some twenty years previous. At length he found the document.

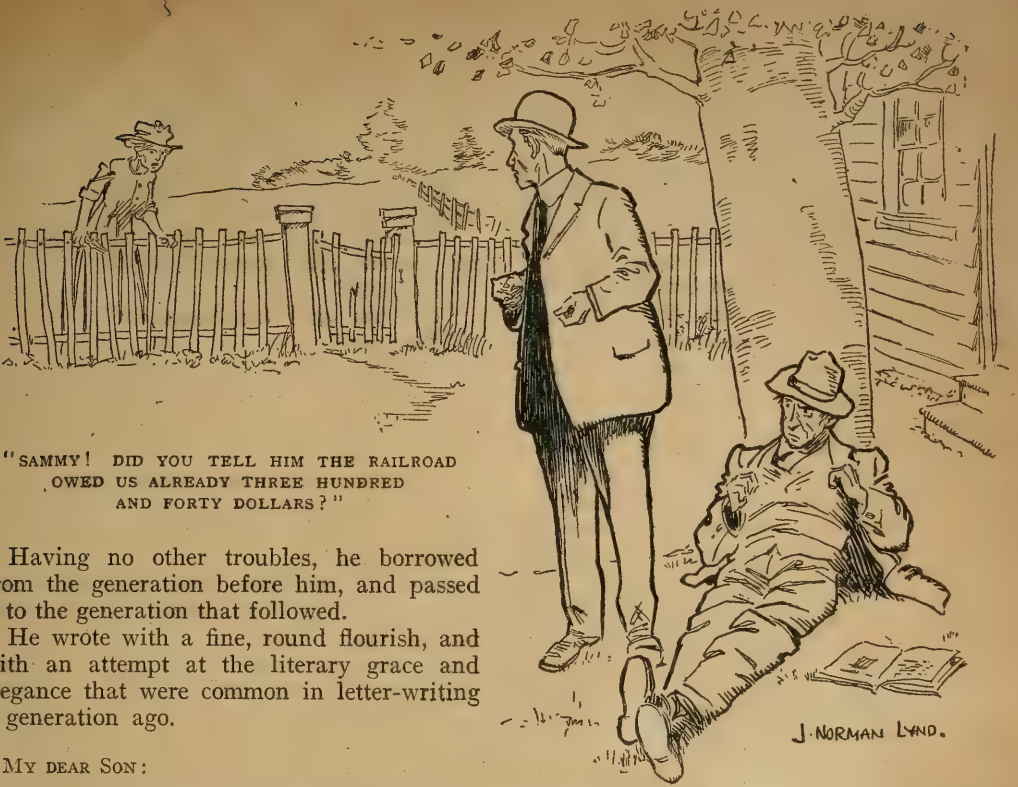
It was written many years ago by the father, and was addressed to the son. It imposed upon the son a sacred injunction.

Among the Kentucky or Tennessee hills, when a father solemnly enjoins his son or sons before the final exit, it is to perpetuate the family feud—to shoot up the McLeods or the Robinsons wherever found or in whatever numbers, and to die with their boots on.

Old man Weaver, on contemplating his final departure, outlined no gory path for his son, nor imposed deeds of violence. He had no grudges against his fellow man, and he should and would have died in peace had not his bosom been rankled by the injustice of the railroad.



IT IMPOSED UPON THE SON A SACRED INJUNCTION.



"SAMMY! DID YOU TELL HIM THE RAILROAD
OWED US ALREADY THREE HUNDRED
AND FORTY DOLLARS?"

Having no other troubles, he borrowed from the generation before him, and passed it to the generation that followed.

He wrote with a fine, round flourish, and with an attempt at the literary grace and elegance that were common in letter-writing a generation ago.

MY DEAR SON:

This letter will be read by you after I am dead and gone, and am reposing in the silent tomb. I have lived in peace and tranquillity with my neighbors, and I harbor no animosity toward any living man. I never liked Democrats, but I forgive them, one and all. I am imposing on you, my dear son, the task of obtaining justice from the railroad company that passes through our farm. This road was built when my father owned the farm.

The company took a strip one hundred feet wide through his land and never paid him a cent. There were no writings, but there was a verbal agreement which, in the light of justice, I consider to be morally binding on both parties. My father promised to donate this right-of-way if the road was constructed within two years. *But it was two years and three months before it went through.* The road failed in the fulfilment of the stipulations by three months, and the agreement became void.

My father sued them, but they held him off. The road became bankrupt. It changed ownership a number of times. He never got his pay. He left the account to me for collection. I promised him on his dying bed to fight the railroad until it satisfied the obligation.

My son, I have done everything in my power, but I have not succeeded. The railroad resorts to every known obstruction. So, my son, I chronicle this to let you know that I have not, like *Rip Van Winkle*, been sleeping on my rights, but that I am awake to them, and on

my death-bed I solemnly abjure you to continue the demand, and, if the opportunity ever comes, to collect one hundred dollars and interest at six per cent.

My son, always contest the railroad's right, and always oppose it in anything it undertakes. With the further injunction that you always vote the Republican ticket, I bid you farewell, my son, until I meet you in the New Jerusalem.

Your loving father,

ISRAEL OBEDIAH WEAVER.

With an almost religious fervor, son committed this to memory, and with filial affection placed upon himself the obligation imposed by the father.

Schwartz returned.

The son was sitting under the same shade, languidly vengeful, and ma was again in the garden, in silent memory of the "gone before" moralizing on the wickedness of the world, and propping up tomato-vines.

Schwartz, the railroad representative, saluted son with a sprightly nod, and a hopeful inquiry about his happiness and welfare.

Son did not seem to enthuse over either, nor did he waste any time in conventional pleasantries nor adorn his proposition with any qualifying persiflage.

"You owe us three hundred and forty dollars right now," he said abruptly.

"Indeed!" exclaimed Schwartz in surprise. "How is that?"

"You never paid for the original right-of-way."

"Why," explained Schwartz, "that wasn't our company—and that was forty years ago. That should have been adjusted by the owner of the land at that time. You see, clearly, we can't open a case of that kind at this late date. Why, we have been in possession, and we have had continuous use for forty years, and that alone establishes our rights."

"We've seen a lawyer," said son. "He tells us our demands are just. We understand that you can condemn and take the twenty-foot strip you want now, and the court will accept the value placed on it by three viewers. Ma and me have talked it over. We have made up our minds. It will cost you five hundred and forty dollars! Understand, we sign no options. When you come along with five hundred and forty, you get your deed for all the land you are using through our farm."

A tall form arose from the soil and leaned over the garden fence.

"Sammy!" she called out shrilly, "did you tell him the railroad owed us already three hundred and forty dollars?"

"Yes, ma."

"Did you tell him we ask five hundred and forty dollars?"

"Yes, ma."

"Not a cent less, either?"

"Yes, ma."

"And we've seen a lawyer, too?"

"Yes, ma."

"And that we don't sign no papers until they come along with the cash?"

"Yes, ma."

She subsided, and resumed her tomato-culture at short range.

"That's all there is to it, sir," said the son, picking up his farm journal and perusing an article on the value of silos.

"My dear sir," said Schwartz, "we cannot possibly entertain a proposition of this kind. It is entirely out of the question. We will have to go to court on this. Does your mother realize they will drag her into court?"

"They will probably let her walk in, won't they?" asked son with apparent innocence.

This nettled Schwartz a little.

"You'll have a case in court all right, and you'll lose money by it. You'll have to pay lawyers and court costs, and, in the end, you will have less than I am prepared to offer you

right now, which is two hundred dollars. You don't want any trouble, neither does your aged mother. She is growing old. Think what it means to her to be hauled into court!" Schwartz added this half appealingly.

Again ma's tall form suddenly loomed above the garden fence.

"Sammy," she cried out, "did you tell him we ain't goin' to be bluffed?"

"Yes, ma."

"And that we'll law 'em to—"

"Yes, ma."

Schwartz beat it. There was nothing else to do. After a time he came back again. Each time son confronted him with the same languid doggedness, and ma, from over the garden wall, let fly many sizzling missiles of censure and condemnation of Schwartz, the railroad, and mankind in general outside of the honest farmer.

Schwartz's fighting blood was up. He recommended that the company file action in court at once to condemn.

But the real-estate department, far removed from the taunt and sarcastic reproaches of the cabbage-patch, coolly concluded it would be about as cheap, and make a better title, and be more satisfactory all around, to pay the amount asked, and the road did it.

It was a great victory for Israel Obediah Weaver, deceased, and, no doubt, he twanged his harp quite merrily, and joined in the celestial chorus with lusty exultation.

Son wore his honors in the community with becoming grace, for he had "put one over" on the railroad. Ma's cabbage and tomatoes thrived bountifully.

All of which goes to show how things are divinely set and must come about.

While this was pending, Schwartz was actively after other tracts.

Miss Arabella Browning Hoover owned forty acres, and Schwartz's blue-print showed that a twenty-foot strip had to be taken.

A woman landowner is usually a hard proposition to deal with.

Schwartz had misgivings, and foresaw another impossible ultimatum, something like he had gotten from ma and son.

At the gateway, Schwartz stopped long enough to admire the vine-clad neatness that surrounded the modest farmhouse.

The lady that met him at the door wore large, gold glasses, and had her hair combed straight back, revealing a broad expanse of super-thought area.

She was thin, but spiritual—and no longer young.

Schwartz scented a strange and unusual atmosphere. He did not know the nature of it, so he outlined his errand as briefly and directly as possible.

Disappointment overspread the lady's face.

"Oh, you are a railroad man," she said regretfully. "I thought you were a publisher."

"A publisher?" exclaimed Schwartz.

"Perhaps you do not know, you may not have heard; I am a literary lady. You may have read some of my odes, never thinking you would meet the author."

Schwartz began to get his bearings.

"Fiction?"

"Not yet. But I may in time. I have completed a book of verse."

"Who are your publishers?"

"The *Weekly Clarion* printed them for me. I had them print me five hundred copies. It is a collection of twenty-five of my best short poems. Every book has my name, written by myself, on the fly-leaf. I have sold a number of them to my friends at fifty cents each. Do you think that is too much?"

"I think it is very modest of you," said Schwartz gallantly, "to let them go at fifty cents. Why, all the best sellers are listed at one-fifty. Would you let me look at one, please? I might take it with me."

Schwartz adjusted a pair of spectacles and looked over the paper-backed volume with the eye of a connoisseur.

"I will take this one," said he. "My wife will be delighted. They are farm poems. Railroad men everywhere love to think and dream of the farm. Most of us came from the farm, and a poem that takes us back to the meadow and the barn-yard touches the heart. Indeed it does, Miss Hoover!"

"That is it," exclaimed the authoress, beaming in the ecstasy of full appreciation. "That is what I write about—the common things about the farm. You will be pleased. Take the second poem—there are twenty

verses. Let me read it to you." She read with feeling:

"See the frisky spotted calf.

His antics fairly make you laugh—

How merrily he kicks his heels,

Showing how fine and sporty he feels.



"THERE ARE TWENTY VERSES.
LET ME READ IT TO YOU."

"Hear the old cow softly moo—

When sun is setting and day is through,

Calling her calfie to her side,

In the dewy eventide."

"Did you write that?" exclaimed Schwartz with a sort of startled amazement, and adroitly forestalling the remaining eighteen verses.

"Why, say, James Whitcomb Longfellow couldn't do any better than that. Why, you've got Rudyard Reilly and John Greenleaf Poe backed into a corner and yelping for help."

"Indeed! How figurative! Then you do appreciate poetry."

"I adore it!"

"How divine!"

"Why, when I was only six years old, I could recite that famous poem, beginning, 'The boy stood for the cold—cold deck.'"

"'Casabianca?'"

"That's it. I could say it backward at seven!"

"Isn't that wonderful!"

Schwartz struck a stage attitude. "'So live that when thy summons comes!' That was a long one. I recited that when I was eight."

"What a splendid training!"

"'Quoth the buzzard, Never more!' I got that when I was ten."

"The raven," she corrected mildly.

"Why, of course, to be sure, it was the raven. How stupid of me."

went on. "I have two aunties out in Oregon that like poetry, and two nieces in Ohio going to school, and a number of my railroad friends. I think I will buy twenty-five of your books."

The authoress was visibly affected.

Schwartz seized the moment.

"But this little business matter," said he, "this twenty-foot strip of ground the rail-



J. NORMAN LIND.

STEPPED HIS SOUL IN MUSIC, JUST AS
HE HAD IN POETRY.

"Take number eighteen," continued the authoress:

"It is moonlight on the meadows,

And the mists are hanging low.

The cows are milked, the chores are done,

Soon will come Clarinda's beau.

"A little jokefulness in poetry does not hurt the imagery, do you think?"

"Why, no," agreed Schwartz, "it's just like wine with terrapin."

"My favorite is number twenty-five, 'The Woolly Sheep.'"

"I'll read that one to my wife," Schwartz hurriedly interposed. "Let me see," he

road wants. We will allow you seventy-five dollars for it. I have the agreement all written out. You may sign it right there—yes—on that line."

"Arabella Browning Hoover—I sign it in full," she said, and repeating it with evident pride. "I am used to signing it in full in my literary work. All authors do that, you know."

Schwartz paid cash, \$12.50, for twenty-five volumes of bucolic rimes, with the author's autograph on each. That went into his expense account, for he got the land dirt cheap.

It was the most flattering appreciation, and the greatest sale the authoress had made. She

was so delighted that the transfer of the real estate was but an incident.

Some retributive justice should compel Schwartz to read the twenty-five poems. On second thought, and weighing to a hair's balance, he should commit them to memory.

Schwartz solved another problem: 'Where do all the phonographs go?

Schwartz tells me he finds phonographs in almost all the farmhouses; that itinerant pedlers make their monthly rounds to take up, exchange, and distribute the records.

One farmer of whom the railroad wanted a strip of land had just purchased a new hundred-dollar machine, and with it a hundred records.

Schwartz, in a moment of weakness, enthused over it so, for two days he had to be a sort of honored guest, and hear the hundred records through and back.

He steeped his soul in music, just as he had in poetry.

Somewhere in between solos, duets, and full choruses, Lincoln's "Speech at Gettysburg," William Jennings Bryan's "Cross of Gold," the "Ravings of John McCullough," the shrill cries of piccolos, the hoarse notes of saxophones, the rattle of xylophones, to the stirring music of regimental bands, and wailing orchestras, Schwartz succeeded in putting through his real-estate deal, even if he couldn't get the sängerfest sound out of his ears for a week after.

"In that particular neighborhood," said Schwartz, "I was warned by all to look out for 'old Hen Loot.' I was told that I would find him the toughest and ugliest proposition I had ever gone up against. That no one could deal with him without being bluffed and abused, and without losing the greater

part of his cuticle. So I put off until the last the disagreeable task of confronting Loot with our proposition.

"I went to him expecting impossible conditions.

"He gave close and respectful attention to my proposals. He outlined the matter the way it appeared to him. Within a half-hour we had come to an understanding and signed an agreement.

"I have no prejudice against railroads," said Loot. 'They are necessary to our prosperity. They should be encouraged to improve and develop. It adds to the wealth of every locality.'

"It was the most satisfactory experience I had in that locality.

"Loot had a fine quality of good horse-sense, so the neighborhood couldn't understand him.

"I had encountered the concentrated opposition of three generations of the Weaver family, the pastoral verse of the lone spinster, and the hundred records of the farmer with a phonograph, but there were no frills to Loot. Just business.

"All that bunch that had stood me off, double-crossed and whipsawed me, warned me against Loot.

"Loot is on the square. He knows 'em all with their little knocks and sharp practise, but they can't solve his delivery, that's all. I'm glad I met Loot.

"No, it's not pleasant work buying real estate for the railroad. But we are done this time. If they propose running any more tracks, it's me to the sawmill.

"These stogies are not as good as them you gave me last month. Been saving these for me, eh?"

MOVING AUTOS BY RAIL.

What it Costs Manufacturers Yearly to Deliver Machines and Supplies to Their Customers.

THE railroads of the country are making something out of the automobile business. According to a high authority on the subject the railroads of the United States earn over eight million dollars a year carrying automobiles and automobile supplies.

He declares that an automobile factory pays for ten times as many freight-cars and at a much higher rate than a carriage factory producing an equal number of horse-drawn vehicles, and he estimates that something like one hundred thousand freight-cars leave the automobile factories a year.

The big factories that produce cars in large quantities give the railroads each day, for a large part of the year, enough loaded cars to make up a good-sized freight-train.

Aside from this express companies earn nearly a million dollars a year carrying tires and other factory supplies.

Such is the immensity of this industry, giving traffic to the great transportation companies to the amount of millions, and representing the expenditure of hundreds of millions annually.—*Bloomington Pantagraph*.



ALMOST A MURDERER.

BY GEORGE H. FELLOWS

A Nite Opr., Whose Weakness for Day-Dreams Blighted His Hope of Becoming a Railroad President.



HANSEN would not have impressed the ordinary traveler as a place of very great importance, or business activity, but to the eyes of William Dobbs Anderson, as he alighted from the steps of the Tylerville accommodation, it held peculiar interest. For it was here, according to the directions of White, the chief despatcher, that William's labors for the L. C. and S. were to begin. The little, red-painted station, with its semaphore-pole in front; the barred windows of the gloomy little telegraph-office in the center, with a battered door upon the left.

The latter bore the somewhat impressive inscription of "Waiting Room," and somehow managed to give the casual observer the idea that the inhabitants of Hansen were very impatient in their waiting, and did a great deal of it at the station. There was a water-tank on the other side of the tracks, with its big black spout drawn up at an acute angle, like some immense teapot, and the siding stretched away a half-mile or more to another switch, just in view from where William stood.

All these, with the trains that would pass by in the night, were to be the especial care of William Dobbs Anderson, aged seventeen,

a newly graduated telegrapher from a well-known school of telegraphy in his native State, and lately engaged by the L. C. and S. Railroad to fill the position of night-operator at Hansen, a position made vacant by the discharge of an operator who had formed the bad habit of whiling away the long hours of night with the aid of a bottle of whisky.

Behind the station, the dusty street led through the sleepy little cluster of houses, past the general store, the post-office, the blacksmith-shop, and then across a little stream and out into the country.

When White had engaged William Dobbs Anderson to fill the important post of night-operator at Hansen, in spite of many misgivings as to William's ability, none of which William shared, he had said to him, while writing out his pass, "You won't find very much work to do down at Hansen during the night, but remember that what little there is to do is mighty important, and must have your careful attention."

"The company is not paying you to go down there and sleep in the office, nor to entertain your friends with whisky and cigars, and I warn you that any slighting of your duties will bring you harsher penalties than if you had the possible excuses which a busier job might offer. Attend strictly to

your duties, and the company will speedily find something better to offer you as you make good."

All of which had impressed William that the eyes of the whole L. C. and S. Railroad Company, from the president and general manager down, would be continually focused upon him, at Hansen, and that when he had shown them how attentive to his duties he could be, how skilful at the key he was, and what a cool brain and natural knowledge of railroading were his, there would be nothing the company had that would be too good for William Dobbs Anderson.

In his mind's eye, he could picture his future meteoric rise, like great men he had read of, from operator to dispatcher, then to the positions of train-master, superintendent, general manager, in quick succession, and finally, in a few years, he would become president of the very road which was now unwittingly buying his time at the rate of \$45 a month. It occurred to him, that when he became general manager he would see that the operators were better paid, for had not his professor told him that in the railroad operator was the future railroad magnate? And, of course, he knew. Had he not taught telegraphy to eight or ten of the present-day magnates?

But while awaiting the realization of his dreams, he had formed a virtuous resolution that he would give the strictest attention to his duties, and make a record for himself upon which he would always be proud to look back, when he became president of the L. C. and S. He would show that he was an operator of no ordinary ability, but cool, quick-witted, and skilful as the best. It was a beautiful dream, and had a most inspiring effect upon the dreamer.

The Tylerville accommodation had barely disappeared in a cloud of smoke and dust around the distant curve, leaving William staring about him on the station platform, when a young man appeared in the door of the telegraph office, and stared coolly at the new arrival.

"Hallo, pard. Guess you must be the new owl-trick man, aren't you?" and without waiting for a reply, continued, "Come in and make yourself at home."

Anderson picked up his brand-new suitcase, and walked into the office behind the operator. Charley Williams was a slim, rather undersized young man, who, judging from general appearances, one would consider about twenty-three years of age; but a closer glimpse of his pale face, sharp eyes,

thin lips, and hair worn slightly thin in front, left one somewhat in doubt as to his real age. He was known on the road as a good man, and to be depended upon in almost any emergency. An invalid mother had heretofore embodied a reason why William had, on several occasions, refused to take a job a little higher up.

"Well, what do you think of the city?" he asked Anderson when he had seen him seated in the office. "You get a chance to see about all there is of it from the platform. It isn't so large that you have to take a trolley-car or a rubber-neck wagon to see the principal points of interest. Are you going to come on to-night, or do you want to post up first?"

"Mr. White thought I had better take the office to-night," said Anderson, determined not to make friends with Williams too quickly. "I don't expect to have any trouble with it."

"Oh, no, you won't have any trouble. There isn't anything much to do. Just to block your trains and keep awake."

"Well, perhaps I had better find a place to board, then. Can you tell me where I can go?"

Williams gave him directions, and Anderson started out to get settled in his new quarters.

"A ham-factory product, if there ever was one!" was Williams's mental exclamation. "Well, he struck a pretty easy berth to learn in, though, and there may be the makings of an operator in him somewhere. Can't always tell by the looks of a frog. Guess I'll have to put the boys next. Wish I could be around to hear the fun. Maybe I'll come around this evening and see how he hits it off. He may be all right."

When Williams took his last order for No. 5, just before going off duty at six o'clock, he said to the dispatcher: "New man on to-night."

"What's his name?"

"Anderson, I understand. Don't look much; may deliver the goods, though."

"All right; thanks. I'll watch out for him."

Anderson came in just then, with his lunch, and a look on his face which tried to say, "Oh, well, it's an old story to me. I've been in bigger jobs than this a good many times." But the look didn't deceive Williams any, and he was particularly careful to explain the duties to the new man. The first shock came to him, and confirmed his worst fears, when he said to Anderson, "You'll probably

get a 31 for the down drag about ten; they usually pull in here for water."

"A 31? Do you mean a train order?"

Williams gasped, and stared at him. A man that didn't know one train order from another! "Gee whiz, I pity Davis to-night," he gasped under his breath. Davis was the night-trick despatcher, and a good friend of Williams. Then he went patiently to work and explained what a 31 was and how to take it.

"I may drop in and see how you're getting along, about nine or ten," he said, "but be careful, and don't guess at anything, and hold your trains unless you are sure it's all right to let them go."

"Oh, I'll soon get on to the knack of it," replied Anderson. "Of course, there's some things I don't quite understand yet, but I'm well grounded in first principles."

As Williams walked home to supper he groaned many times. "He's well grounded in first principles. Oh me, oh my! It would be funny enough to make a cow laugh, if it wasn't likely to be serious. Gee, I wouldn't be in Davis's shoes this night for a dollar. Won't the fellows have a circus? Holy gee, he's well grounded in first principles! He'll be bleated lucky if he ain't grounded under six feet of earth before morning, I'm thinking!"

Back in the telegraph office, William Dobbs Anderson was making his début in telegraphy. No. 5 came steaming in, and the conductor, a little man, all nerves, came running into the office.

"Got anything, Budd?"

"Sir?"

"Got any orders for this train? Your block's red."

"Oh, yes. I believe there is an order here for No. 5; is that your train?"

"Well, rather. Leastways it wuz when we left Morrisville."

Anderson failed to recognize this pleasantry, and handed over the 31, tearing it off the pad.

The conductor read it.

"Humph, guess you want our sigs, don't ye?"

"Er—er—oh, yes, please sign it," and he laboriously placed the carbons back under the three copies.

"Now," he thought, "I have to send these in to the despatcher."

He opened the key and hesitatingly struck off "GV—GV—HN."

"I—I, GV," came back quick and clear. Anderson stuttered a little, then said, in

a trembling, shaky hand: "These are the signatures for the order for No. 5."

"GA" (go ahead), snapped back the despatcher.

"Burrows, conductor; Brown, engineer."

"Wt no.?" (What number?)

"How?"

"I say, what number is the order?" the despatcher asked, spelling it all out slowly.

"Oh—it's No.—No. 114," Anderson managed to gasp out.

"Wts ur name?" (What's your name?)

"Sir?"

"What's your name?"

William made an interrogation-mark.

"I say—w-h-a-t-s y-o-u-r n-a-m-e?"

"Oh, I didn't understand you. It's William Dobbs Anderson."

"Complete 6.42 P.M. A. S. W. DS," came back the reply, and the wire was still until another man began to report a train.

Nearly every man along the line had been listening to the last of the conversation, and there wasn't many that didn't crack a smile when that answer came, "Oh, I didn't understand you. It's William Dobbs Anderson."

William Dobbs Anderson he was, to all the other men on the wire, from that time forth. There was something in his reply that night that tickled most of the men of the key. An experienced man would have replied in just one word, "Anderson," and would have abbreviated that, if it were in any way possible.

There is a tendency with telegraphers to cut their conversation as short as possible, or rather, to use the least number of words, and to abbreviate the words as much as possible.

To hear a man spell out his conversation has somewhat the same effect as listening to a man who stutters badly. An experienced man gets out of patience waiting for him to say it and get done.

The abbreviations come with experience, and a person who was not used to them would find some difficulty in figuring out what an operator was saying, even if it were written down on paper, if the operator were one who had been in the business eight or ten years.

No. 5 pulled out of Hansen with a puff and a snort, the engine in some way contriving to express the opinion of the conductor and engineer at the extra minute's delay caused by the operator, who didn't know their signatures were needed on a 31 order. "Must be a bran' new 'un," was the comment of Bill Brown, the engineer. "Considerable lack o' sense!"

Back in the office at Hansen, William Dobbs Anderson was soliloquizing to himself: "Awfully rough fellows, these trainmen. But I suppose it's natural. Can't expect them to have the education and refinement of a clerical man, er—operator."

But his thoughts were cut short by a realization that something was going on with the instruments at his elbow. The same repetition of dots and dashes were being clicked off, and, half unconsciously, he began to think of what they might be.

"Funny sending; wonder what it is."

And then suddenly it came to him, "HN—HN—HN, GV; HN—HN—HN, GV."

"Why, that's my call," he gasped, and quickly reached over and answered, "H-N."

"Ty gn et?" (They gone yet?)

"Who is it?" He hadn't the remotest idea what had been said to him or what was wanted. Then followed a meaningless jumble of dots and dashes, an operator's equivalent of, "Oh, blame it all, can't you get nothing?"

Then, slow and clear, "Has number five gone yet? G—V."

"Oh, yes, sir; just gone."

"O. S."

"Sir?"

"Report them."

Anderson had a faint idea that the despatcher was asking for the time they arrived and departed, and this he finally managed to give him, and upon receiving the despatcher's acknowledgment, leaned back with a sigh of relief.

Thus the night passed. A round cursing by a train-crew, who were stopped by his red signal which he had forgotten to change to clear for them, though there was not another train within fifty miles of Hansen, had small dampening effect upon the self-satisfied spirit of William Dobbs. The disrespectful remarks of other operators along the line were more effective, but even these were forgotten when he had left the office in the morning.

"Of course," he soliloquized, "those fellows are rather impudent, but then, of course, they don't know me yet. When I have had an opportunity to show them how easily I can do the work, they will treat me with the proper respect, no doubt."

Two weeks passed, and William Dobbs Anderson still ornamented the office at Hansen during the hours of darkness. His stupendous ignorance of practical telegraphy was being gradually made apparent to him, but, on the other hand, his increasing famili-

arity of the routine work to be handled during his trick gave him sufficient satisfaction to quiet any fears of his being unable to hold the job.

That evening, Charley Williams had remarked as he left the office: "I hear there will be a special down the line to-night. A party of the president's, going east. Look out for them. You will probably hear all about it on the wire." Williams hardly realized that Anderson could learn scarcely anything from the wire by listening to the talk that went over it. If an operator had something to tell William Dobbs Anderson, it must be told under difficulties.

Therefore, they seldom took the trouble to do it, unless the necessity was great. During the evening William noticed the instruments were making more noise than usual, but his interest did not take him far enough to find out what it was all about. A light drizzle had set in, and the wires were not working very well. Like all beginners at his trade, he had had an inordinate desire to adjust the instrument when he first came to Hansen, but after Williams had come on duty three mornings in succession to find every instrument entirely out of any sensible adjustment, he had cautioned Anderson rather sharply about monkeying with the adjustment. But the weather was fast making them heavy, and Anderson finally ventured to monkey, and succeeded in making it sound much clearer. Just then he heard his call.

"Try 241," he got after asking it to be repeated.

"What do you mean?"

"Which way is 241 open?"

Anderson got the words "241 open," and holding his key open, looked at the wire at his right hand. Then he noticed it was quiet. He tried to adjust that as he had the one upon which he was working. He tried pulling it up, he tried turning it down; he tried the magnets close; he tried them back; but in spite of all his efforts he couldn't make it work.

"Yes, it's open, I guess," he said to himself, and turned to the neglected wire at which the chief was waiting. He had been "adjusting" nearly ten minutes, and the chief's patience, never of the best, was quite exhausted.

"Yes, sir, it's open," said Anderson when he got back to the wire.

What the chief said, where he sat fuming at the key, is not recorded; but it is sufficient to say that even in an office where emphatic language is far more common than any other

style, his was strong enough to make every operator and despatcher look up and grin. They did enjoy seeing old doc get in a rage, as long as they were not the cause of it.

But doc took another grip on himself, and tried again.

"Ground 241 west, say when," he said slowly.

"Sir?"

Again he repeated, slower than before.

"I don't understand!"

"Do you know how to ground a wire?"

"I don't believe I do, but if you will tell—"

"Do you see that strap that runs across the top of your switchboard? Stick a plug in the hole on the left-hand side of the wire marked 241, and say when," was all the chief said, not mentioning what he thought! Business was being held up on the wire to give this green operator a lesson in wire-testing. The president's special was due to leave the terminal in ten minutes, and the despatcher must get a line on things before the special left. Considering which, doc was not in an engaging frame of mind, to say the least!

The wire lay open, and he waited and waited to hear the result of his instructions.

"Which plug shall I take, sir?"

Doc leaned back and groaned. Every one in the office was listening by this time, and the groan had many echoes.

Again he straightened up, and slowly began to tick off:

"Never mind the wire; kindly open the window and say when."

"Now, sir."

"You got it wide open?"

"Yes, sir."

"Then kindly follow my directions: Jump out head first and break your fool neck!" when he closed the key with a snap and leaned back to recover his nerve, while the room echoed with the merriment of the force.

In the meantime, Anderson was recovering what portion of his dignity he might, while he closed the window, and again settled down in his chair to think it over, and plan what he would do when he became president. The instruments chattered away drowsily, the rain fell outside and streamed down the window-pane, and soon William Dobbs Anderson was nodding in his chair. By and by he slumped down on his folded arms on the table and was fast asleep. He had slept some time, when it seemed he was manager of the road, sitting in his office next to the despatcher's room at Grayville. He

could hear the instruments as they pounded away. Suddenly it pierced his consciousness that they were calling him, though it did not seem strange that the call had been changed to "HN."

"I wonder what's the matter with those operators, that they don't answer?" he thought.

Still the calling continued. He tried to shout to them to answer up, but try as he might he could not make a sound. Then he jumped to his feet to go out and tell them. The movement woke him, and he found himself back in the station at Hansen. Some one was calling HN steadily and persistently. He reached over and answered up.

"93 coming yet?" was the query.

"No, sir."

"Are you sure they haven't passed?"

"Yes, sir."

"When they come, give them the siding. Be sure you don't let them get away from you. Copy 31, copy 3."

The order followed, directing No. 93, engine 7554, to take siding at Hansen and meet first No. 12, and wait at Marion till 12.22 A.M. for second No. 12. Anderson repeated and got his "O. K." He noticed the other order was directed to first No. 12 at Madison, the first station west of Hansen, a distance of about twelve miles. After the order was finished the despatcher called him again, and said:

"First No. 12 is regular train; they are making schedule time to keep out of the way of president's special—that's second 12. Get 93 in quick so's not to stop first 12."

"O. K."

Then he peered out the window again to see if there were any sign of No. 93. It was black as ink. He picked up his lantern, got up, and put on his coat to be ready to run out and open the switch when No. 93 should show up around the curve. Then he waited.

Five minutes passed.

"Lucky I woke when I did, to get that order," he thought.

Then an awful thought occurred to him!

Suppose 93 had passed while he slept! First 12 had already left Madison, he knew. The despatcher had said it was the regular train. Regular No. 12 was the fast midnight passenger going east. It usually had a day-coach and two sleepers, besides the smoking-car and two baggage-cars. Probably a hundred people were on it to-night!

He dashed out the door and peered up the track toward Madison, trying to see the tail-lights that must have passed fifteen minutes ago, if his fears were not groundless. Then

he hurried down the track to see if, by any good fortune, it was perhaps coming, even then. But no light showed through the falling rain in either direction.

Back to the key he rushed. Perhaps he could yet stop first 12 at Madison. He would confess everything. He would admit he had been asleep on duty. He would tell them anything if only he could stop that train; if only he would not have on his conscience that awful crime—the crime of having brought death to hundreds of innocent men, women, and children! Oh, the agony of it!

His eyes were bulging with terror, the sweat was streaming down his face, and his hand was trembling violently as he dived for the key.

But stop—his call—perhaps it was not so after all! Perhaps 93 had stopped up the road.

"W says 93 left at 11.05; you sure they haven't got by you? Are they there?"

"Not here, don't see them; might have got by. I was asle—" he managed to stutter out with his trembling hand.

But the train-despatcher had snatched the wire away from him and was calling "MN" like mad, and in the despatcher's office there were oaths and hoarse cries!

"MN—MN—MN."

"I—I MN."

"First 12."

"D. 11.32 MN."

"Out of sight?"

"Es 'r."

The wire went open as the nerveless hand

of the despatcher fell from the key, and his body slumped downward to the floor.

Anderson, his faculties sharpened by the terror he felt, had understood from the rapid conversation of the despatcher and the man at Madison that first 12 had gone. And 93 had gone! They would come together! Nothing but a miracle could save them, and miracles did not happen in his day. They would smash together. He could hear the awful grinding, roaring crash of it! The cries of the men! The agonized shrieks of the women! The piteous wailing of little children! Oh, God! He, William Dobbs Anderson, had done it. Murderer! The feeling of the hunted took possession of him. He dashed through the open door and ran. He knew not where, but ran blindly, madly, desperately on. Anywhere, to hide from the sight of God and man. Murderer!

Had he waited a moment more he would have heard the key close as the operator in the despatcher's office jumped to his assistance. He would have heard MN call the despatcher and report:

"Tail-lights showing up; they are backing up here; will run them in.—MN."

A long stretch of straight track the other side of Madison, a kind Providence that brought the two trains to either end of this stretch of track at the same time, two watchful and efficient engineers, who saw each other's headlight in time to bring his train to a standstill—these had saved the soul of William Dobbs Anderson from the verdict of murder.

NEW CLEVELAND TO BUFFALO RECORD.

Second Section of Twentieth Century Limited Makes Lake Shore Run of 182 Miles in 159 Minutes.

THE long-mooted question as to whether the distance between *New York and Chicago by rail could be covered in sixteen hours* seems in a fair way toward solution.

Engine No. 4800, with combination-car, two sleepers, and one buffet-car, left Cleveland over the Lake Shore last month at 9.10 o'clock (thirty minutes late) and arrived at Buffalo Creek at 11.49 P.M., making the run of 182 miles in 159 minutes.

Considering the conditions of the run this time is by far the best yet recorded. At two points along the route the work of track-raising is in progress, and at other places culverts are being built. A speed of fifteen miles an hour was made through the Ashtabula crossover; also at Erie, while over the Derby culvert the speed had to be thirty-five

miles an hour. The two sections of this train from St. Louis and Cincinnati come together at Cleveland. The second section's remarkable run of much less than a mile a minute, notwithstanding slow-downs, would seem to demonstrate the possibility of a sixteen-hour run from New York to Chicago, provided the track is in good shape.

With road-bed completed and in good shape the time between Cleveland and Buffalo may eventually be reduced to 150 minutes.

If this can be equaled on the other divisions a sixteen-hour run from New York is as good as assured.

Engine No. 4800 was in charge of Conductor John Welch, with Engineer John J. Keefe at the throttle, and L. J. Stonefield as fireman.

Told in the Roundhouse.

BY WALTER GARDNER SEAVER.

LOOKING death in the face without batting an eye is a task which has fallen to the lot of more than one railroad man. Many are the stories of hair-raising episodes that have gone the rounds from one division to another until they are finally forgotten in the routine of the day's work.

What the layman calls bravery, fearlessness, and heroism, the followers of the rail are inclined to define as cool, clean-cut nerve. The man who hesitates, stops to think, or draws back out of the path of danger when duty calls him is—well, he isn't in our class.

While some of Mr. Seaver's tales go to show that discretion is the better part of valor, there are plenty of incidents where nothing short of that don't-care-a-whoop-what-happens spirit could have kept the eagle eye from giving her the big hole.

Blood-Tingling Experiences of Railroad Men Who Calmly Threw the Dice with Death, and Won or Lost with All the Calmness of Their Calling.



HERE comes old Watson. I say, Watson, you can put up your dinner-can. No. 17 is abandoned, so that you are out this trip, anyhow."

"Well, don't know as I care much. A rest is pleasant, sometimes."

"Come over here and light up that dinky little pipe and be sociable. We were talking about exhibitions of clean-cut nerve.

"As far as exhibitions of nerve are concerned, there is not an engine turns a wheel or a train crew that starts out on a run that doesn't show samples of nerve most any day. There's no use in a man lying down and crying because he's up against it. If he has piled them up there's no use in his pulling his hair, and crying, 'Me che-ild, me che-ild,' like some of these biscuit-shooter actorinas. He is up against it, and that's all there is to it.

"I see in one of the papers an account of where a brave engineer went down to death in his engine to save the passengers when he could have saved himself.

"More fool he. The man who is fool

enough to stick to an engine when he can save himself by jumping has no business pulling the throttle. After he has shut her off and put on the air he has done all he can, and after that he is simply committing suicide if he don't go overboard while he has a chance.

Leaping for Life.

"Why, I knew a case on one of the Western roads where, by a despatcher's mistake, No. 2, passenger north bound, got orders to meet No. 11, freight south bound at a station that we will call Larkin, while No. 11 got orders to meet No. 2 at Stevens, six miles farther south. As a result the two met half-way between the stations and fortunately on a two-mile tangent. No. 2 was the fast mail and 11 was a fast freight and the two were getting over the iron pretty fast.

"Billy Hawkins was the eagle-eye who was pulling No. 2 and as 11 swung into the tangent ahead of him he knew they were bound to mix. Now when an express running forty-five miles an hour meets a freight running

thirty-five miles an hour on a two-mile tangent there is not much time to ask questions.

"Billy threw her over, slammed on the air, yelled to his fireman and went out the gangway without stopping to catch the hand rail. He hit the ground, rolling. Charlie Grey, who was pulling the freight saw No. 2 about the same time, so he threw her over, slammed on the air and tumbled overboard without waiting to pick a soft place to light.

"The engines came together, jammed in their front ends, threw their headlights clear of the right of way and made a considerable fuss. The passenger-engine being a ten-wheeler tried to mount and ride the big consul. Neither engine was very badly damaged. Their front ends were smashed in clear back to the flue sheet, but the saddles were not hurt.

"The express messenger and the postal clerk were shaken up and bruised somewhat, but when they heard Billy squeal they knew there was something doing, and each of them jumped and caught the hand-rail in their cars and swung clear, while boxes and other stuff was being shot around over the floor.

"Nobody was hurt, both enginemen had done all that mortal men could do to avert the danger, and when they went overboard they acted like sensible men. There are instances where a man has no time or opportunity to jump; the engineman's first instinct is to do all in his power to save his train and then look out for himself. To see another train coming at you as fast as it can drive, and you coolly sit there, throw her over and put on your air, requires cool, hard nerve, when you know that every second counts and that by putting on your air you may be losing your last chance to come clear, yet I don't know a runner anywhere that is not just that kind of a fellow. But there's few of them that would be fool enough to stay on an engine one second after he had done all that he could, and knew that no power on earth could prevent them getting together. What good does it do a man to have the

newspapers print columns about his bravery when he is dead and gone?

"There is another instance of cool, hard nerve that I heard of, where an engineman coolly and deliberately took the chances of an almost certain smash, yet escaped without damaging a hair. It was on the Kansas City Southwestern. The Latham Construction Company was building the road from Beaumont to Arkansas City. At Beaumont connection was made with the Frisco.

Over a Tricky Track.

"Latham, the original contractor who formed the construction company bearing his name, was a good contractor and a good builder, but he was not an engineer. The



"WITHOUT WAITING,
TO PICK A SOFT
PLACE."

company had a chief engineer who was an Englishman. Latham had called for cross-sections, but the engineer said that cross-sectioning was a useless expense; that all that was necessary in railroad building was to 'cut off the 'ills and fill up the 'oles.'

"So the location stakes were marked with the amount of cut or fill and the subcontractors turned loose. The specifications provided that the waste from the cuts should be drawn out and used as far as might be possible to make the fills, and that no material should be borrowed, unless it was absolutely unavoidable.

"Well, that grade was a sight for gods and men. At the foot of the hill the earth was drawn out of the cut and piled up until the crown was in some places twenty-four feet wide, while in the middle of the fill the crown was not more than ten feet in width. At one place, where the fill was rather a long one, the crown in the center was less than eight feet wide, so that the ends of the ties, when the track was laid, extended over the edge of the bank.

"For some reason that I do not know, Latham got up against it good and proper financially, and he had some twenty miles of track down and no money to go farther. So he made a dicker with the Frisco, and they finally agreed to take over the line and complete it to Arkansas City.

"They sent a man out to inspect the work, and Latham had an engine and car ready to meet the fellow at Beaumont and take him over the work. Now Latham knew that if the engineer saw this particular fill he would condemn the work, and that meant good-by to the deal. So he took Frank Randall, the engineer, to one side and told him what he was up against and said that when he got to that fill he would contrive to attract the engineer's attention to something inside the car, and that when he struck that place he wanted him to go over it as fast as he dared. Well, Randall was a reckless kind of a devil and for that reason could not hold down a regular run on any of the old roads.

"He knew that if he hit that piece of track, which was on a new fill and not yet surfaced, with any sort of speed he would go in the ditch as sure as a gun. They started out, and for the first few miles it was all right. Then Latham, when he saw that he was nearing this fill, called the engineer's attention to some blue prints, and the engineer, thinking that he would see this portion of the track on his return, gave his attention to the prints.

"Frank pulled her wide open and sailed across that fill as though he had a solid rock-ballasted track under him. He expected every minute that the track would slip and pile them all down the bank, but he sat there just as unconcerned as though he was standing on a siding.

"Luck was with him, and they swung around the curve into a cut and he shut her off. When they got to the front, Latham kept the engineer busy looking at material, plans, etc., until dark, and then they started back to Beaumont. The deal was consummated, the road transferred, and Latham went ahead with his work; the first thing he did being to get the work-train out and widen that bank.

"After that no grading was done without cross-sectioning, and when the road was completed it was up to the average of Western roads. Randall said that he wouldn't make a run like that again for any man on earth.

No Money for the Men.

"I heard of another case of nerve, which, while it was not an engineman this time, was as much a case of cool, hard nervy work as I ever heard of.

"A little road out in Kansas was being built, and they had fifty miles of grading done, the bridges in, and about twenty-five or perhaps thirty miles of track down. For some reason, probably the fault of the underwriters, the supply of money suddenly ceased and left the company with this piece of road, several hundred men with two or three months' pay due them and general dissatisfaction all along the line.

"When the superintendent was advised that there was no money available, and none in sight, it was up to him to do something. It was all very well for fellows in Kansas City and Chicago to instruct him to stop the work until the funds were available, but they did not have to confront an angry mob of the toughest men on earth who were not only bad medicine on general principles, but who had a considerable show of right on their side to justify any overt action that might take place.

"There was nothing for it but to tell the men that there was no money for them and that he did not know when there would be, and that he had been ordered to stop the work until money should be forthcoming.

"The superintendent was a young fellow, not long out of school, but he was just as cool and nervy as they make them. He or-

dered out an engine and told the engineer to run in the back motion down to the front, and that it might be necessary to make a run for it. Fast running on a new and unsettled road-bed and on a track only partially surfaced is a vast sight more risky than a mile-a-minute schedule on a solid road-bed with track laid in two feet of rock ballast thoroughly tamped.

"The young fellow put a forty-four in his side-pocket and a supply of loose cart-ridges in the other side-pocket of his coat, and they went to the front. Here the superintendent took his stand with his back against a box car that was used as a cooking-house and called the men up. He told them briefly that the company was at a standstill for the time being, owing to financial complications, that there was no money available for their wages, and he did not know when there would be.

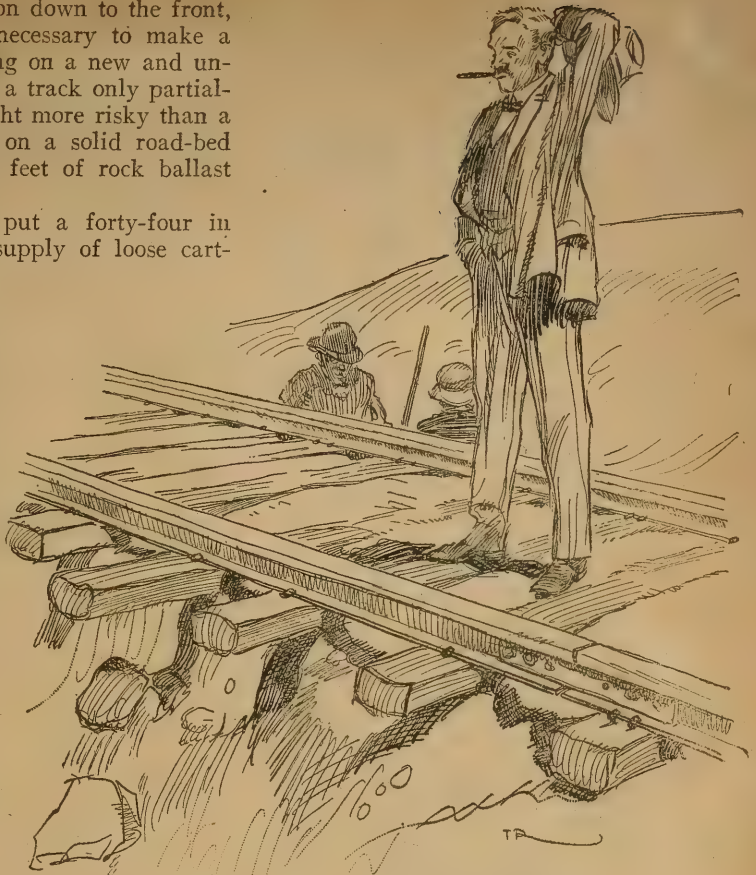
"The engineer backed his engine two hundred feet down a piece of track that had only been spiked at ends and centers. In doing so he was acting against the superintendent's instructions, but he saw the temper of the gang and he meant to be just as close to the nervy young fellow, who stood leaning against the side of that box car, as he could get, so that if it came to a mix-up, the engine would be in easy access.

"For a moment there was silence, then a muttering began which increased to a roar, and some shouted to lynch the super.

A Little Straight Talk.

"'Hold on there, men,' said the superintendent, 'don't tear your shirts. You are not going to do any lynching, for you are too darned cowardly; and, besides, you know that every man jack of you would be hunted down to the death. Furthermore some of you will go to the happy hunting-grounds before you get me.

"I am not responsible for the company's



"THAT MEANT GOOD-BY TO THE DEAL.

failure to provide the money. My wages are due as well as yours, but I am here to build this road and to carry out orders. I intend to build this road; I intend to carry out orders. You can go ahead with the work and trust to the future for your pay or you can stop work now, just as you choose. Any man that wants his time-check can have it.'

"A few men yelled to rush him, but the majority were silent.

"'Come, men,' he said, 'I want to know what you intend to do. I am going back very shortly. I am here to give time-checks to such as want them. You may be able to get them discounted in the neighborhood; I don't know. I am going to shove this work ahead if I have to wait six months for the money. You will all get every dollar that is coming to you, but I can't say when.'

"'I'll take my pay out of your hide,' one brawny Irishman yelled and started for the young fellow. Without moving or in the least changing his careless, lounging position

beside the car he shot through his pocket, the ball striking the fellow in the left shoulder, turning him half around, and the engineer told me that he had never in his life seen such a silly expression on a man's face as came over that of the Irishman.

"With the crack of the shot, pandemonium seemed to have broken loose. Many

think they are. 'We can hold the gangways against the whole gang.'

"The superintendent saw that the engineer was wise in his day and generation, and, thanking him, he said that he would not have thought of the engine being the best place for him to stand off the mob, and besides if it became necessary they could pull



I'LL TAKE MY PAY OUT OF YOUR HIDE!"

of the terriers were for rushing the young fellow, but the majority were against it. In the meantime the engineer swung out of the gangway and got the superintendent by the collar of his coat and actually swung him bodily on to the engine. He told me afterward that he couldn't do it again to save his life.

"The superintendent turned toward him rather angrily, when the engineman said:

"It's all right for you to stand down there in front of that mob with your back to a car, but I am in this scrap, too, and I want you here on the deck of this engine, and if they can take you off they are better than I

out at any time and leave the hoboos to chew the rag as long as they had a desire to.

"The mob made another rush, but the superintendent saw that out of over two hundred men there were only fifteen or twenty who made the rush, and he scanned their faces closely so that he could identify them later.

"Then he stepped to the left gangway and called the time-keeper.

"'Tom,' he said, 'hand me up your time-books.'

"Tom did so.

"Now, men, all who want their time-checks sing out their names. But remember

that when I give you this time-check it is your discharge from the work.'

"To perdition with the work; we want our money,' yelled some.

"I told you that I had no money and that I did not know when I would have. I will give all who want them time-checks, which will be cashed as soon as the company has the money. More than this I cannot do. Sing out now, I won't stay here all day.'

"Slowly a dozen men came up and got their time-checks.

Establishing Credit.

"Now you fellows that have got your time, clear out—vamoose; and don't let me catch you on the work again. Now you fellows that want to, stay with the work. I don't think it advisable to resume work until I have further advices, but you will have your chuck just the same, and during the time that you are not working I will have the boarding boss charge your bills to the company and not against you. So you will only be out a few days, which you can spend in hunting and fishing and resting up.'

"The men cheered at this, and one of them, the boss track-layer, stepped forward and said:

"See here, Mr. Franklin, if you will give us your word that you will see us paid in full we will go ahead with the work as long as the material lasts.'

"I tell you, O'Brien, that I do not know any more than you do when the company will succeed in raising funds. It may be next week; it may be three months. But I will pledge you my word that as soon as the funds are available you will get every dollar of your pay.'

"See here, byes,' said O'Brien, turning to the crowd, 'what differ is it to us when we get our money, so be as we gets it. If yez were paid evry mont' yez would only blow it in; yez can have a bigger blow-out wit' free mont's pay than only wan.'

"This was a new view of the case, and it appealed to the most of them with force. O'Brien mixed with the crowd a little while and then he came back to Franklin and said:

"The byes have decided to go ahead wid de work and want you to keep their money till they call for it; but they won't trust the company.'

"Very well, I will hold all the wages as soon as I get money until you call for it.'

"Well, sir, that fellow Franklin went ahead and kept the work going. He rustled

among the local dealers and the farmers for supplies and provisions so he kept the commissary supplied; though in buying on credit, and uncertain credit at that, he had to pay at least twenty-five per cent more than the value of the stuff. But he went ahead, shoving the road right along, and the little combination that had been worked to freeze out and squelch the enterprise failed because a young fellow stood up before a mob of hoboes and defied them, and by sheer nerve compelled them to go ahead because of their admiration for his sand.

"The engineer told me that it was the nerviest piece of work that he ever saw, and for the first hour he would not have given a lead nickel for the lives of either of them.

"I was told of a case that for cool, calm nerve went a little ahead of anything that I have heard of for some time. My informant did not give the name of the road or the engineer, and I did not ask it. It was on a line up in Minnesota, Michigan, or Wisconsin; at any rate it was in the pine lumber country.

A Relief Expedition.

"Word came that a fire was raging in the forest and that a camp of lumbermen, which was reached by a logging road, was in danger of being swallowed by the fire and that the men had no way of escape, for the logging locomotive had broken down.

"This young fellow was handling a work-train and was on the siding at the station where the logging road connected with the railroad. He said that he was going after the men and asked for some one to volunteer to run out after them. As the forest was on fire between the station and the camp they would have to run the gantlet. Only one man volunteered to go with him, and that was his fireman.

"They cut out a couple of boxes and started at full speed for the camp. Now a logging road is not built with any view to speed, and in many places one had to run very carefully to avoid being ditched.

"But this couple did not wait to consider the condition of the road. They went bumping and thumping along and in an hour had reached the camp. The road was yet free of the fire when they went in, but it was sweeping down rapidly and there was no time to lose.

"The lumbermen tumbled into the box cars without attempting to save anything. All they cared for was to get out of there,

The engine and cars were turned on the wye, and in fifteen minutes after he had reached the camp they had started back.

"On the return they found that the fire had swept up to the logging road and was then crossing it, and for at least a quarter of a mile they would have to run through a veritable tunnel of fire. The engineer and firemen dipped their coats into the tank and saturated them thoroughly, and also wet some gunny-sacks that they had picked up at the logging camp, which they wrapped around their heads, leaving only a narrow opening for their eyes.

Blazes on Both Sides.

"All this time the engine was darting ahead and coming nearer to the fire which was raging like a furnace. The engineer hooked her down in the corner and pulled her wide open. At this point the track was exceedingly rough, and there were nine chances out of ten that the engine would climb the rails and turn over, but they took that chance. It was a case of death either way, and they concluded they had rather die quickly in a smash-up than to be roasted.

"He caught a glimpse of the road occasionally as the wind would sweep the flames aside for an instant, and he saw that in some places the ties were burning. He and the fireman wrapped the gunny-sacks more closely about their faces, covering even their eyes, and both crouched down on the deck

behind the boiler-head, leaving the engine to drive ahead into the mass of fire and keep the rails or go into the ditch; it was all the same, for they could not avert the derailment if it should occur, and their only chance was for a dash through the blazing trees.

"The engine rocked and bounced, and they thought on two different occasions that they felt the thump of the drivers on the ties, but in a few moments a breath of cool air blew on them, and, unwrapping their eyes enough to peep out, they saw that the train had run through the strip of blazing forest and was now ahead of the fire.

"He eased her off a little, but the fire, driven by the strong wind, was creeping up behind them, and burning brands would be torn from the burning trees and thrown far ahead, and in an instant the dry pine needles on the ground would be blazing like a pile of straw, but after running another mile they found they were drawing out of the fire-zone and the reckless speed was reduced until the engine was running somewhere within the limits of safety again.

"They pulled up to the station and then stopped. The box cars were on fire and burning in half a dozen places, while the engine was a sight to behold. She had been so badly scorched and her smoke-box and jacket were so red where the scorching heat had wiped away the paint that the engine looked at first glance as though she was red-hot, from pilot-beam to cab.

"The lumbermen tumbled out of the cars, all of them more or less scorched, and when the fireman and engineer climbed down out of the cab and struck the depot platform, both of them fainted. Fortunately neither were burned, but the heat had been so intense that the gunny-sacks and their coats were thoroughly dry and were smoking in spots.

"From the time they wrapped the wet gunny-sacks around their heads until they came out of the fire could not have been more than fifteen minutes, yet each of them said afterward that it seemed to be a lifetime. Efforts were made by the newspaper men to get them to tell the



"ALL THIS TIME THE ENGINE WAS DARTING AHEAD."



story, but neither of them seemed to think they had done anything remarkable, and would never talk about it if the subject could be avoided.

"At one time the 102 River got on a tear, and like many of the streams in northwest Missouri it did just what it was least expected to do. Never in the history of the section had the 102 been so far out of her banks. For some ten days all train service on the Creston branch was abandoned. Then Dave Winton, who was superintendent, sent Will Craig, who was a freight-conductor, and Dempsey, with engine No. 30 pulling a way-car, to endeavor to get through with the mails. There were many places where the track was under water for miles and no one knew whether the roadbed was still there or not.

Taking the Mail Through.

"All went well until they reached Bolckow. Beyond that station, and nearly all the way to Barnard, the water was running over the tracks. The train stopped and Craig and Dempsey held a consultation. Orders were to get the mails through and they decided to make the trial. Craig got a hoop-pole and walked along the track, sounding with it as he went and thumping the ties. The train followed him slowly. If the track

"CRAIG GOT A HOOP-POLE AND WALKED ALONG THE TRACK SOUNDING."

was still there and the water was not deep enough to reach the fire-box and kill the engine they could get through.

Navigating by Rail.

"At times the water was up around Craig's knees, and for a time it seemed as though they would have to wait where they were until the flood had gone down, but fortunately the water proved to be low enough and they finally got through. Dempsey and his fireman stood in the gangways ready to jump if the track should slip and throw the train down the bank, and they ran through at a rate considerably slower than the average man would walk.

"Once or twice they thought they felt the track slip, but it proved to be nothing serious and they pulled into Barnard safe and sound. Between Barnard and Maryville the roadbed was a little higher and the water did not seem to have gotten over it so badly.

"On the return trip they found that though the water had gone down, the track had slipped in several places, and at one point the wet rail was immediately over the edge of the bank, while the ends of the ties rested on thin air. Neither Craig nor Dempsey ever said much about the matter, and neither of them seemed to think that they had done anything remarkable. I doubt if Craig, in his report, even mentioned the fact that he had to wade ahead and sound the depth of water. The old man had sent them to get the mails through. They got them through, but how they did it they did not consider was anybody's concern. It was all in the day's work, and that was all there was to it.

A Civil War Incident.

"I do not know of any calling that requires such cool, calm nerve in all branches of the service as railroading. During the Civil War there were a great many railroad men in both armies, and they were frequently employed in handling trains in cases of imminent danger, not only from shot and shell, but none knew where a track might be mined or a bridge wrecked. We read lots of stories of hairbreadth escapes and brave actions, but for some reason there is little if any note made of the exploits of the railroad boys.

"I was told some time ago of an instance that occurred during the war. The rebels had a lot of supplies, among others a quantity of powder, that was in serious danger of falling into the hands of the Federals during Sherman's march from Atlanta to the sea. It was at a little station on a road running out of Atlanta. I believe it was called the Georgia Great Southern, but of this I am not sure. Anyhow the name of the road is immaterial now.

"Among the men in the rebel army was an engineer named Spence. I fired for him after the war and he told me the story himself. The rebel commander was in a great stew about losing this stuff, especially the powder, and he called on his men to know if any of them were locomotive engineers. Spence and another fellow named Downey stepped forward.

"The colonel called them into his tent and asked them if they would volunteer to take that train of supplies out. Spence said he would if he could get a good fireman. Downey, who had not had an opportunity to speak first, then spoke up and said that he would fire the engine.

"The only engine available was an old mill named the Tuscumbia, engines being named instead of numbered in those days. She was an antiquated old scrap-heap even for that period. Spence and Downey set to work, and after several hours of hard work got her in shape so that they thought they could get her over the road, but her flues were leaky and she was liable to die on them at any minute. If this should happen anywhere near the enemy it meant a Northern prison at the least.

"They chose to go out at night, and it was one of those dark, black, rainy nights when you couldn't see your smoke-stack. They had no headlight, and it would not have done to light it if they had.

"They pulled out about midnight, the third car in the train containing the powder. The federal troops were closing in and the rebel soldiers had to be on the move. Just before they were ready to start the colonel came up and taking Spence aside told him that his scouts had brought in the information that the Federals had struck the railroad about ten miles below and had thrown up earthworks at a point that would command a curve, though the earthworks were not erected with a view to that purpose, and that they would have to run the gantlet.

A Dangerous Cargo.

"Wishing them good-by the colonel stepped aside, and, after having taken farewell of their comrades, who considered that they were going to certain death, they started. Shortly after they pulled out the storm increased in violence. The rain came down in sheets and poured against the cab windows until it seemed as though they were almost running through a stream of water. The lightning flashed incessantly and the roll of the thunder was almost continuous. The noise of the storm was such that it effectually drowned any sound made by the train, but the Tuscumbia was a wood burner and she threw a constant shower of sparks which readily betrayed her presence.

"After running a few miles they stopped at a haystack and piled a quantity of the wet hay upon the back of the tender. As they came near the spot where they believed the Federals were concealed, Downey, who had a hot fire, threw in a lot of the wet hay in the hope that it would stop the shower of sparks. It succeeded for a time, but when they were nearly opposite the Federals they saw a picket fire close to the track and knew



"THE JACKET OF THE TUSCUMBIA WAS A PERFECT SIEVE."

that they could not run much farther before they were discovered.

"At this instant the wet hay ceased to be effective, and the Tuscumbia threw out a shower of sparks. They heard the alarm shot fired by the picket, and Spence pulled her wide open and then crouched down beside Downey back of the boiler-head, where they would have the drivers and lockers on either side as a protection against bullets. They heard the roar of a cannon and the ball took the bell away.

"The sharp crack of musketry was heard and they could feel the thud of the bullets as they struck the engine. The cab windows were shattered and fell in a shower of glass over the two men. A second cannon-ball passed through the car of powder, but fortunately so high that it passed over the barrels.

"They swept around the curve and into the darkness beyond, followed by a storm of bullets as long as they were in range, but they got through and delivered the train and supplies intact safely at their destination.

"The jacket of the Tuscumbia was a perfect sieve, so full of bullet holes was it, while the cab, which was of wood, was riddled and a mass of splinters. Spence heard afterward that when the jacket was removed the wooden lagging was full of Minie balls.

"Spence was called upon for engine service several times after that, but he never again had such an exciting run as when he ran that gantlet. The colonel and the whole regiment were captured, so that Spence never had an opportunity to report to his commanding officer as to the result of the expedition."

A STEAM-ELECTRIC LOCOMOTIVE.

A NEW steam-electric locomotive is being built in England. It comprises a steam turbine, which operates the dynamo-supplying current for four series-wound motors. The engine is being designed to haul express-trains, and will be tested in actual service, so as to show its efficiency as

compared with the ordinary steam-locomotive. It is pointed out that turbo-generators have proved so efficient in stationary plants that a similar system would very probably prove to be of value on railways to replace steam-locomotives, particularly on short suburban lines.

"AH, THOSE WERE THE DAYS."

According to a Report Published Eighty-Five Years Ago, a Railroad "Cost Only About Three Times as Much to Build as a Good Turnpike Road."

THE *American Mechanics' Magazine*, of April 30, 1825, said:

"The intention of the present scheme is to introduce a more economical and expeditious mode of conveyance than is now in use for vehicles of every kind, whether employed in the transportation of persons or merchandise. It is proposed to supersede entirely the necessity of horse-power in all public wagons, stages, and mail-coaches, post-chaises, etc., and to employ, in its stead, the more potent agency of steam. A careful examination of the drawings now presented to the public as a plan of general iron railway will, it is hoped, clearly demonstrate the ease, safety, and celerity with which vehicles of every denomination for the conveyance of goods and persons may be propelled by mechanical power. . . . The value of railroads as a medium of commercial communication has not escaped the sagacity of Dr. Young. In his lecture on natural philosophy, he said:

"It is possible that roads paved with iron may hereafter be employed for the purpose of expeditious traveling, since there is scarcely any resistance to be overcome, except that of air; and such roads will allow the velocity to be increased almost without limit.

"Iron railways are of two descriptions. The flat rail, or tramroad, consists of cast-iron plates about three feet long, four inches broad, and half an inch or one inch thick, with a flattened or turned-up edge on the inside to guide the wheels of the carriage. These plates rest at each end of stone sleepers three hundred and four hundred weight, sunk into the earth, and they are joined into each other so as to form a continuous horizontal pathway. These, of course, are double, and the distance between the opposite rails is from three to four feet and a half, according to the breadth of the car or wagon to be employed.

"When wrought iron is used (which is found to be equally cheap, with cast metal, and greatly preferable in many respects), the bars are made of smaller size, of a wedge shape, and twelve or eighteen feet long, but they are supported by sleepers at the distance of every three feet. The wagons used generally run upon four wheels of from two to three feet in diameter and carry from twenty to fifty hundredweight. . . . Yet, a railway costs only about three times as much as a good turnpike road. It is obvious, then, that if railways are to come into general use, two-thirds or more of the expense of transporting commodities would be saved.

"That locomotive engines are not only capable of performing all that has been promised in some of the prospectuses for new railroads, we are very ready to admit, nor would we indeed wish to be hurled along at the rate of twenty miles an hour; but that they are an important improvement in science, and in their application of human means to the great purposes of commerce, cannot, we think, be denied by any except those whose interest is directly opposed to the adoption of them."

"An enthusiastic correspondent of a Providence, Rhode Island, paper, who claimed to be the inventor of the cheapest railroads yet devised, gives the following description of his invention, with the costs of material, etc.:

"Only one English engine alone costs two thousand dollars, which sum the whole of our apparatus does not much exceed, as figures will prove; for seven hundred chestnut rails, at three dollars, amounts to only twenty-one dollars; and it ought to be remembered that this is *all* the expense we are at, and the inference is conclusive in our favor. We place our rails fifty to the mile, by the side of the road to pry out the wheels when they get stuck, and hoist behind when wanted."

RAILROADING IS HEALTHFUL.

COMPILATIONS have been made from government reports showing the relative liability to disease of the employees in various trades. According to the returns so far tabulated by the census bureau, the occupation of the steam-railroad employee is the healthiest of all. In a long list of maladies, the only one to which the railroad employee is more liable than workers in manufacturing or agricultural trades is typhoid fever, and to

this he is far less liable than are the workers classed as "laborers." The figures show that the railroad man is far less liable to consumption than the workers in the manufacturing and mechanical industries. He is less apt to commit suicide than any other wage-earner, and suffers less from rheumatism and malarial fever. His nervous system, according to the statistics, is in excellent shape. Heart disease and pneumonia are rarer among employees.

PRESIDENT OF THE LINE.

BY JOHN WELLSLEY SANDERS.

For Blander Happens To Be Clivers
and Clivers Happens To Be Blander.

SYNOPSIS OF PREVIOUS CHAPTERS.

VINCENT WILSON, having risen from the apprentice shop to mechanical superintendent of the Mainland System, has discovered what he believes to be a leak in the affairs of the company, and criticizes to President Harvey Jones the action of the board of directors on voting \$20,000 for certain purchases. Wilson visits a former employee of the Mainland System, "Doc" Ferguson, who imparts to him the information that Kaintuck, a former friend of both, had developed leprosy and been sent to the leper settlement at Molokai. "Kaintuck" was betrothed to a beautiful girl, Meriel Planquette, whose address Wilson is very desirous of obtaining from "Doc." "Doc" refuses to give this information unless Wilson pays him \$5,000. Meriel Planquette, after "Kaintuck" had been sent to the leper settlement, married John Toylmore, formerly New York representative of the Mainland System, who shortly after their marriage had been killed in an automobile accident. She now has many suitors, among them, Bertrand Clivers, an elderly broker, and Jimmie Winters, young and impetuous. She loves the latter and promises to marry him, but is won over at the very last moment by Clivers and leaves with him for Europe. Instead of going to Europe, however, Mr. and Mrs. Clivers register at the Continental Hotel on Fifth Avenue, where Winters discovers them. He is mad with jealousy and hatred for Clivers and forces his presence on Meriel as she enters the hotel alone. He reproaches her and threatens her husband. He overhears two men in conversation in the hotel lobby, and as they let fall the word "Clivers" he determines to know more about them. One of them, who proves to be Vincent Wilson, is stopping at the hotel, and to him Winters sends up his card. He is received, and explains the reason of his intrusion. Wilson is eager to hear his story and, in turn, tells of his interest in the Clivers. Winters is persuaded to introduce Wilson to Meriel as she is lunching alone, her husband having left for Louisville to be away a few days. Wilson is also anxious to meet Clivers, and arranges with Winters and Tom Tracie, a detective, to be in the hotel lobby on Sunday evening at the hour Clivers is expected to return. On his arrival he is recognized by Wilson as Stephen Blander.

CHAPTER X.

Surprising Blander.



WHEN Vincent Wilson accosted the surprised Blander in the auditorium of the Continental Hotel, he looked unconcernedly at the man he had been wait-

ing for, and simply said:

"Hallo, Blander!"

The man turned as white as a sheet.

He gulped a few incoherent remarks. He appeared to be choking at one time. He trembled, and a flood of perspiration rushed to his face.

Wilson was alone with him. Tom Tracie and Jimmie Winters were in their seats taking in the extraordinary proceedings.

Tracie's keen, detective eye told him that Wilson had found his man. Tracie had dealt

too long with criminals not to know when one was landed.

And as he afterward told a man when reciting this incident, "Nothing so quickly brings a man to his senses—especially one who has absconded or is fleeing from justice under an assumed monach—*as to call out his right name.* There is something in the rigid twist of the body; there is a peculiar gleam in the eye; there is a telltale expression that comes into the face that the trained detective cannot let pass. Why, I have come up behind suspected men, called out their right name, and they have turned like a shot. I never knew it to fail."

Blander was Clivers and Clivers was Blander.

Wilson was keen enough not to let the slightest suspicion enter into his meeting with the man he was hunting. As if it were the most accustomed thing for him to meet the officers of the Mainland System at New York

hotels every day of his life, he greeted the newcomer.

"I didn't know that you were in New York," said Wilson, very quietly—just as one old friend greets another. He didn't want to spoil his game. He wasn't going to let Blander—for Clivers's correct name was Stephen Blander, and he held the responsible position of assistant auditor of the Mainland System—into the secret. Wilson was now more convinced than ever that he had his man, but he was determined to get complete proof before he made a charge.

"Why, I'm pretty well—pretty well," said Blander hesitatingly. "You see, I just arrived. I am in New York to look into some of our securities."

The caught culprit always blunders by beginning to make false excuses.

"They must be a source of trouble to a man who has as much on his mind as you," replied Wilson, with all the calmness of a most disinterested acquaintance.

"Yes, they are a good deal of trouble. But they constitute a large part of our business, and must be taken care of. But what—but what brings you to New York?"

"Oh," answered Wilson, "I am here on a little business of my own. I have an old aunt living here that I have wanted to visit ever since my father died. I promised him that I would come to New York some day when I had a chance, and call on her. And as it is the first time that I have ever been here, I thought that I would take a few days off and see some of the sights."

"Pretty big place," said Blander, seemingly satisfied that all was right.

"Yes," said Wilson, "it's the biggest city that I have ever seen. A man could get lost here and no one would know it."

Wilson did not intend that there should be anything significant in this remark. He was not looking straight into Blander's face when he uttered it. If he had, he would have noticed a peculiar reddish glow appear just under the eyes.

Their conversation was interrupted by a bell-boy, who said politely, but with all the shrill fervor of his youthful voice:

"Shall I take your bag to your room, Mr. Clivers?"

Blander caught the boy before he had time to finish the sentence. Just as the lad was uttering the "Clivers," Blander quickly answered:

"Yes! Yes! Of course."

But Wilson's keen ears had caught it. Naught else was needed to create any doubt.

Blander was undoubtedly the thief who had stolen the funds of the Mainland System.

All Wilson had to do, then and there, was to call Tom Tracie and make his charge, but—he was going to get his proofs first. Men like Blander must be caught with the goods.

"You must excuse me. I am tired, and must go to my room," and Blander extended his hand in a formal farewell. Wilson took it. A good detective will always equal, if not exceed, his quarry in politeness.

Blander did not have to give himself away further—much to his solace. The shrill-voiced bell-boy was in waiting with bag and key, and, with his well-developed dignity, escorted the magnate to the elevator-door and called out the number of his room.

Blander lived on the seventh floor in suite 737, almost directly over the room that Wilson occupied.

Arriving at the seventh floor, he was met by another boy, who insisted on carrying his bag, but Blander was in no mood now for any sort of attention.

On the journey up in the elevator, something told him—some sinister spirit and his own black conscience—that all was not well.

Once he caught sight of himself in the mirrors that walled the car, and he was startled at his own countenance.

He knew that he looked apoplectic, and he knew, also, that a sudden fright accentuated its symptoms. His face was flushed and burning. The conversation with Wilson had not done him any good. His heart was throbbing and his breath was coming short.

He was thoroughly frightened.

So he brushed the bell-boy aside roughly, and insisted on carrying his bag himself.

When he reached the door of suite 737, he paused on its threshold for a few moments. He wanted to gather his senses before he entered. It would not do for Meriel to see him in an excited state. He must be calm.

He drew his hand across his face. It was still moist with perspiration. Taking his handkerchief, he wiped it away.

Then he shook himself as if it was possible for a man to shake off the thing that is most occupying his mind, just as a dog shakes off the water when it emerges from a pond.

Mustering up courage, he entered. Meriel was seated in a large easy chair, whiling away the time with a novel.

"Ah, John," she said, "back again?"

There was not much of good cheer or welcome in her voice. There never can be where there is no love.

"Yes, Meriel, here I am." Blander's tone

was also that of the peevish, bored-to-death man.

He did not even kiss her. He removed his outer coat, and, without further parley, said:

"You must excuse me for a while, dear. I have had some terrible business reverses to-day—and my head is aching badly. Ring for a whisky-and-soda. I am going to rest for a while."

He entered the bedroom, and without removing a stitch, fell on the bed. Burying his face in his hands, he began to think.

Think he did—good and hard—as a man can only think when he has done that which is dishonest, and when his conscience tells him that he is in danger of being found out.

Blander felt that he was in a trap—that the meshes were being drawn around him tighter and tighter.

Although Vincent Wilson had not given the slightest clue that he entertained the smallest suspicion, yet something told him that there was danger lurking near. He was convinced of it. His bark was close to the rocks.

And so he thought. And his thoughts burned deep into his brain.

He must find a way out of it.

"I must! I must!" he said almost out loud. "I must! I cannot let these fellows expose me, and wind up in disgrace—or—my God!—jail!"

There was the account for steel rails that he had so deftly manipulated for several years. By auditing fake orders for thousands of tons of steel rails for branch roads he had turned a nice sum into his own pocket.

There was the account for coal. By the duplicate bills of the Central America Coal Corporation, he had charged up thousands of tons that the Mainland System never purchased—and the price had gone to him.

There was the account for lubricating oil—

"Here is your whisky-and-soda, dear."

Meriel interrupted his reverie, but Blander did not move. He wanted her to think that he was asleep—and he made good his point. Meriel imagined that he was asleep. She placed the beverage on the table and tiptoed out of the room.

He waited until she had probably seated herself again, and he jumped off the bed and swallowed the liquor. It was his intention to order more and drown his feelings in drink, but his better self told him that he needed all his will-power should anything happen.

He thought a while longer, and then Meriel came to him. She reminded him that it was

nine o'clock and that she had not had any dinner.

He, too, was getting hungry. But the thought of going down to the dining-room was too much for him.

He could not eat if he saw Wilson again. He suggested that they order something to be sent up to their rooms. Meriel was willing.

In her heart, she somewhat feared the man. She had married him for his money—nothing more—and women who marry men for their money generally become as subdued as tabby-cats on a hearth-rug.

But Blander was frightened—purely and unqualifiedly frightened.

There he was registered at the Continental as Bertrand Clivers—the name that he was known by in New York—and there was a man in the same hotel who knew him intimately by his right name—Stephen Blander.

In New York: Bertrand Clivers, the eminent promoter and capitalist, supposed to be worth millions. In Louisville: Stephen Blander, assistant auditor of the Mainland System, with a salary of five thousand dollars a year, bachelor, churchman, and conservative business man.

He had kept it up so successfully all these years. No one had found him out. Perhaps no one had found him out now. Perhaps the meeting with Wilson was only a coincidence, and, besides, who was Wilson that he could do the assistant auditor any harm?

Pshaw! it was only a coincidence, after all. Wilson had probably only spoken to him because he was a stranger in a big city and was looking for company. That was all. After dinner, he and Meriel would go downtown to some gay café, and he would meet some of the men whom he knew in Wall Street, and forget it.

The dinner was served and eaten in silence, and when Blander started for the gay café and the Wall Street friends, he changed his mind.

He was scared—just clean scared. He could not help thinking of Wilson, and shortly after Meriel had retired for the night, he went to the telephone, called up the office, and, in as cheerful a voice as possible, asked if Mr. Vincent Wilson, of Louisville, was staying at the hotel.

"Yes," replied the clerk. "Do you wish to speak to him?"

"No-o," responded Blander. He grabbed the telephone-box to keep himself from falling. He staggered across the room and blindly aimed for a chair.

Suddenly the room began to reel. The

blood rushed in a seething flood to his brain and seemed to blind him. He tried to call to his wife, but he only choked.

Meriel found him on the floor where he had fallen. Without a moment's loss, she called to the office for a doctor, and, not satisfied that the house physician was hurrying as fast as possible, she searched the telephone-book for other doctors in the neighborhood, and called them, too.

The house-physician arrived, and, with the aid of a bell-boy, lifted Blander to a chair. Restoratives soon brought him around. The other doctors who had been summoned soon appeared, and added to the clinic. The consensus of opinion was that their distinguished patient had a stroke of apoplexy. They added that it was nothing serious.

"Still," said an eminent medico, in explaining the matter to Meriel, "it is just as well to be careful that there is no second attack. You should insist that your husband go away with you for a change. He should not think of business for a month. He ate a heavy dinner to-night, and was shocked, probably, by some bad news he heard."

"Our American business men work too hard for their own good," he added for good measure in sentiment.

"Yes," interrupted the unruffled Meriel, "poor Bertrand has been working awfully hard of late."

One young doctor who had been summoned found a chance for a bit of advertising, so he called up the newspaper offices and told how he had been suddenly called in to attend "the eminent financier, Mr. Bertrand Clivers," and that is why all connected with the affair were surprised to see it displayed on the front pages the next morning.

CHAPTER XI.

The Man in 737.

WHEN Blander left Wilson and started up in the elevator to his rooms, as told in the preceding chapter, Wilson crossed the lobby to where Tom Tracie and Jimmie Winters were sitting.

"Well," said Tracie, as Wilson took a chair, "I see that you got your man."

"How do you know?" asked Wilson, with a smile.

"I could tell it by the expression that came into his face the moment you spoke to him. It is an old failing of humanity. The face frequently tells more than the voice. It takes a pretty old and hardened criminal to

get away with it. I have seen a man try to control his face, using all the power that he could summon, but there are some little muscles that cannot be kept in leash. Yes, Wilson, I had my eye glued to Mr.—what's his name?—Blander when you spoke to him, and I'll stake my professional career that you have the right man."

"I think that I have," answered Wilson.

"Are you going to do anything now?" asked the detective.

"No," replied the young man. "I don't think that he suspects anything. If I take any steps now, he may crawl through some loophole. I want to catch him with the goods on."

"First, I will run over to Louisville and see our president, and tell him what has happened. I want to ask you if you won't report this matter to your chief, and ask him to let you keep an eye on Blander and report what he does while he is in New York. Just keep him under surveillance. If our president wants him arrested, I will advise you by wire, and you can go ahead. However, I think that he will agree with me that it is best to grab him red-handed."

"You can count on me," replied Tracie. "I am as good as on the case now. All that I have to do is to tell the chief what has happened this night, and that it is the wish of your road that I shall be assigned to shadow your man, and you can sleep easy that I am on the job. And if our friend Winters here," he added, laying a kindly hand on Jimmie's knee, "wants to learn something about sleuthing in a big city, he can come along with me."

Jimmie was willing. The affair had excited him. It gave him an insight into a phase of life which he had believed could only exist in the minds of romancers.

Vincent Wilson had decided to take the first train for Louisville and tell President Jones what had happened, but, on further consideration, he decided that he would not plunge into the case too deeply.

On advice of Tom Tracie, who agreed with him that it would be best to nab the man "with the goods," he sent the wire telling President Jones that he had a clue, and would be home in a few days.

"If you rush at Jones with this, he may want the man arrested without delay," said the detective. "Let us follow him around for a day or so and see what he does. Then you can carry the news to Louisville."

They agreed, finally, on this plan. They were to meet at the hotel in the morning and

wait until Blander had his breakfast. Then Jimmie and Vincent were to go to the latter's room, while Tracie, who was an adept at following a man, would trail Blander.

If he found that the financier was engaging in anything that might be used as evidence against himself, Tracie was to telephone to the Continental, and the other men would join him.

But their plan met a sickening halt when, on the next morning, each read on the front page of his paper the story of Blander's apopleptic stroke.

Each laughed heartily at the sympathetic tone of the attending doctor's remarks in an interview, stating that "the terrible manner in which eminent business men of to-day injure their health by so constant an application to business. Mr. Clivers's sudden attack," the pill-prescriber further said, "should be a lesson to other of our great financiers not to overtax their brains with business details."

Blander did not leave his bed that day. The three men watched closely, but there was no sign of the auditor of the Mainland System or his pretty wife. Blander was advised by a physician to keep quiet for several days. That he was willing to do, but he could only keep his body quiet.

The mind—the seat of the great complex system that controls the human body—was ill at ease. Blander could not keep it quiet. He tried to blind it to the things that were uppermost in it, but it would not be blinded.

His past arose to smite him. He thought that he was sufficiently clever to keep it asleep, so that it would never disturb him, but now it had been aroused by the most fatal enemy that man has ever known—Fear—and it stood before him a mighty mountain that seemed impossible to cross.

Four years ago he took the first wrong step with the Mainland people. That was when he represented to the company that its repair work could be done cheaper by an independent concern than in its own shops.

His figures were so plausible that his superior officers agreed with him. Then he formed a conspiracy with an equipment company and "pulled down" nearly forty thousand dollars before he stopped—and he only stopped because his partner in the criminal transaction was afraid to go any further.

Then Blander thought of the overcharges that he foisted through on false vouchers every time that he was short and needed ready coin. Then the whole system of black and iniquitous graft that he had put in operation danced before him.

Great Scott! but it was hideous!—hideous beyond the dream of a fiend!

It had all been so easy—it had given him so much money—a position in the financial world—but now, it was a reeking, loathsome menace that he could never destroy.

He would have given every cent of the dishonest gains if—but, it was too late.

Fear had him in her clutch. He was a coward, and he knew it. If he had been stronger—stronger and more fearless, so that he could face the world and snap his fingers at Wilson and any other man who might accuse him—but he was simply a coward; a moral, low-down coward.

These were the thoughts that flashed through the unfortunate man's brain as his trained nurse flitted hither and yon in her untiring effort to administer to his every wish, and his wife sat in the parlor of their suite reading away the hours, and dreadfully bored that the conventionality of such a case kept a society woman from life's enjoyments.

CHAPTER XII.

His Black Beast.

IT dawned upon Tom Tracie, as the day wore on, that it would be a good plan to telephone to Blander's rooms and find out just how he was.

Tracie said that he would do this under the guise of an old friend, so the three men walked down Fifth Avenue to another hotel, and, with Tom Tracie as the spokesman, were soon in connection with the sick man's room.

"Is this Mr. Clivers's room?" asked Tracie.

The trained nurse answered the call, and she replied that Mr. Clivers was in, but was suffering from a severe illness.

"So I read in the papers," said the detective, with a tremor of sadness in his voice. "I am an old friend and I was anxious to find out if Mr. Clivers is in a serious way."

"Not at all," replied the nurse. "The doctor says that he must stay in bed for about a week, and then go away to rest up. We are sure that he will be much better to-morrow, but he will be unable to see any one for several days. Shall I tell him who asked for him?"

"Just say Mr. Jones," said Tracie, taking a long chance, and hanging up the receiver.

It was evident, then, that Vincent Wilson could be of little use in New York for a day or so, and he arranged to leave for Louisville

on the first fast train. Tracie would be on constant watch, and Jimmie would be close to Tracie.

Harvey Jones was a surprised railroad president when he heard Wilson's story.

The two men had gone to the president's club for luncheon. There they could be quiet—no one would break in on the recital of the awful exposé.

President Jones listened to the character of one of his most trusted officers being slowly torn to pieces—an idol that he had placed on the pedestal of honor being shattered piece by piece.

"Are you sure?" he asked finally.

"I'll stake my life on it," replied Vincent Wilson.

"Your enthusiasm to run this matter to earth hasn't got the best of you?" asked the president.

"I would kill myself before I would accuse a man falsely," said Wilson. "And to prove that I am right, I ask you not to take any action until we have him where we can bring the proofs of our suspicions right to his face."

President Jones did not answer for a moment. He seemed to be terribly depressed. The fact that Blander was a traitor had unnerved him.

"I never thought that of Blander," he finally said. "To me, he was always the soul of honor. You can never judge a book by its cover."

"Or a dog by his bark," added Wilson.

"What is your plan?" asked the president.

"I shall wait here until I hear from Tracie. Then I will take the first train to New York. If we find that Blander changes his plan and decided to come to Louisville, then I will remain here. I should prefer that he comes here. While I am certain that he is operating in New York under another name, it will be more to our advantage to catch him here.

"Were he arrested in New York, he might fight extradition and get away, and we want

to land him!" Wilson brought his fist down on the table with so much vehemence that the president was startled, and then Wilson, realizing that he had overstepped the limits in a gentleman's club, apologized.

"You are pretty positive in your charges," said the president. "Why do you seem so vindictive?"

"I am only doing this for the good of you and the road," he replied. "If I am wrong, I will resign my position, and you can fire a loaded pistol at my head."

Several days passed, and there were no developments. Wilson did not hear anything from Tracie, so he wired him.

The detective answered that Blander had not left his room, and sent a note by the night mail that he had telephoned as "friend Jones" several times and was told that the patient was getting on nicely, and would be out and down-town soon.

But the patient was still thinking. He had it firmly established on his mind now that there was something in the air—that he was being suspected, and that sooner or later he would be brought to face his awful past.

He must do all in his feeble power to prevent it.

Wilson was the man who knew—the man who would be his dark shadow. Wilson would dig into his books and accounts until he found a vital spot, and then—it would be all over. Wilson would keep at it until he could find an opening and then strike—and it would happen soon.

So there is only one thing to do, thought Blander: Get Wilson out of the way!

But how!

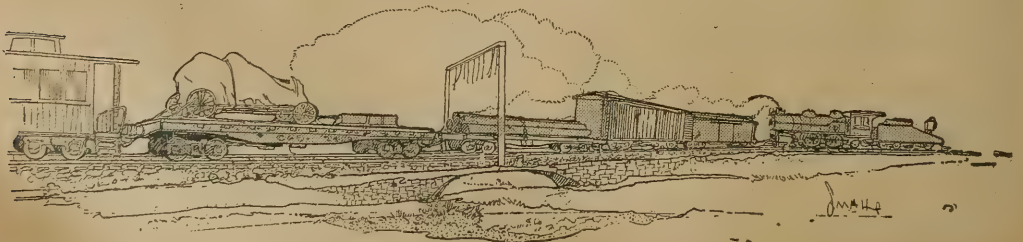
He must be killed! Yes, Wilson must be murdered, sandbagged, drowned—he didn't care. Only Wilson must be put out of the way!

That would be his first duty when he was on his feet again.

He slept better that night.

Wilson must be put out of the way. He would pay to have it done. He knew where to find men who would do the trick.

(To be continued.)



On the Main Line.

Matters of Vital Interest which Show that the Railroads of the World Are Keeping Pace with the Rush and Advance of Modern Industry.

WIRELESS TELEGRAPHY ON THE U. P.

THE Union Pacific Railroad has commenced the installation of a system of wireless telegraphy along its road, says *The Railway and Engineering Review*. A powerful station already has been established at Omaha, Nebraska, capable of communicating with the smaller stations along the line, and towers will be erected now at Sydney, Nebraska, and Cheyenne, Wyoming.

The work of installation is under the direction of Dr. Frederick H. Millener, experimental electrician of the Union Pacific Railroad, who left Omaha this week to supervise the erection of the stations at the places mentioned. They will be finished and put in operation as soon as possible. The first work of the towers will be to facilitate railroad telegraph business during wind and snow storms, and, later on, efficient communication with moving trains.

Dr. Millener has been conducting experiments at the Union Pacific shops in Omaha for nearly four years, and the new installation is the result of these investigations.

1,000 MILES OF ELECTRIFICATION.

IN an address made recently by Professor John W. Whitehead, of Johns Hopkins University, it was pointed out that out of the two hundred and twenty thousand miles of railroad in this country, only a thousand miles as yet have been electrified. Attention was called to the fact that the electrification of the elevated railroads of New York City resulted in increasing the capacity of the roads fifty per cent. Suburban, express, and freight services all seem to improve under electrification, and it is always possible.

LARGEST PLANT EVER MOVED.

AT the cost of a small fortune a giant palm, fifty feet high when in the ground, twenty feet in circumference at the base, and weighing forty tons in its case, has been moved from the W. J. Dingee estate at Redwood City, California, to Santa Cruz.

The palm was first cut out of the earth without disturbing the dirt around the roots more than absolutely necessary, as a large frame, or box, resem-

bling the uncompleted first story of a large frame house, was built around dirt, roots, and trunk. The palm was slowly moved to the railroad tracks as a house is moved, on rollers, and lifted to the flat cars with powerful derricks.

ANOTHER RAILROAD MOTOR CAR.

THE independent gasoline-driven railroad motor-car, is still growing in favor. A new car, seventy feet in length, recently left the shops at Omaha for the Buffalo, Rochester, and Pittsburgh Railroad. This is the seventy-fourth car of the type to be turned out from these shops, and it is the sixth car to be built for service east of the Mississippi River.

EXPLAINS A B C BLOCK SYSTEM.

ALFRED BEAMER, formerly superintendent of the Idaho division of the Northern Pacific Railroad, is now devoting his time to extending the use of the A B C block system of train-despatching, of which he and T. H. Langtry, trainmaster of the Northern Pacific, in Spokane, are inventors and patentees, on lines in various parts of the United States, Canada, and Mexico.

The device is a reversal of the system now in use throughout the country. Instead of the train-despatcher calling up the operators and giving them orders, the new system requires the operators to ask for orders. It has been used on the Idaho division of the Northern Pacific road the last three years, and no defects have been discovered thus far.

"Take three stations designated A, B, and C," said Mr. Beamer in explaining the plan to *THE RAILROAD MAN'S MAGAZINE*.

"When a train pulls out of A going in the direction of B, the operator at A notifies the operator at B that the train has passed his station. The operator at B then calls the despatcher and asks for a block-card from B to C. If the block shows clear on the despatcher's sheet he gives B instructions to issue a block-card.

"Before the train leaves B the operator at that station calls the operator at C and asks him to pledge the block between their stations. If the block is busy the operator refuses to pledge it, and immediately calls the despatcher.

"No train can pass a station without first receiving its block-card, and instructions are issued to trainmen from station to station. Collision is impossible unless, of course, the three men make the same mistake at the same time."

LARGER LOCOMOTIVES.

THE ever-increasing weight of Western passenger-trains is being met by a steady growth in the size and power of the locomotives. The Chicago, Milwaukee, and St. Paul have recently turned out of their shops two types of six-coupled simple locomotives, with cylinders twenty-three inches by twenty-eight inches, one of which has seventy-nine-inch drivers and a tractive effort of 31,900 pounds, and the other sixty-nine-inch drivers and a tractive effort of 36,500 pounds.

RAILROAD HAS TREES TO GIVE AWAY.

THE Detroit and Mackinac Railway has for the last five years experimented with a forestry nursery on its Tawas Beach property, and at the present time has on hand trees of the following kinds for transplanting: White pine, Scotch pine, Western yellow pine, spruce, and Western white cedar. The company desires to dispose of these trees, and will give them to parties who will plant them and see that they are properly taken care of.

The only charge made will be the expense of packing and freight charges from East Tawas to destination. The company especially requests that farmers on, and adjacent to, the line of the Detroit and Mackinac Railway, make requisitions for these trees for reforesting some of the lands that they have cut over on their farms.

ANOTHER FAST MAIL TRAIN.

BY a new arrangement of schedules on the Pennsylvania, Missouri Pacific, and Santa Fe railroads, a letter can now be sent from New York to Los Angeles, California, in three days, sixteen hours, and fifteen minutes.

This is a gain over the old schedule of about eleven hours, or nearly half a day. This is another instance which shows how thankful the American public should be to the air-brake.

A SMOKELESS LOCOMOTIVE.

THE world is waiting for a smokeless locomotive, and one burning bituminous coal has been developed in Chicago, says the *Springfield Republican*. A group of railroad men and members of the smoke committees from several cities recently saw the "Doylair smokeless locomotive" draw a train of cars from the stock-yards in Chicago, a distance of twenty-eight miles, without any display of smoke or gas, and with but little firing necessary.

It is claimed that the device on the locomotive produces something like perfect combustion, and thereby effects a saving in fuel consumption of between thirty-five and sixty per cent. This seems almost too good to be true, and yet there is no inherent impossibility in the claim made. The fact that the outsiders who witnessed the demonstration were greatly impressed by it is most encouraging.

This ought to be the beginning of a determined public demand that this smokeless device be used on all locomotives, to the speedy retirement of the smoke-emitting nuisances that not only detract from the pleasure of traveling, but sadly pollute the air.

It will be a great triumph for civilization when results like those produced in this Chicago experiment have become commonplace.

NEW SANTA FE ENGINES SUCCESSFUL.

THE giant freight-engine No. 1700, built for the Santa Fe by the Baldwin Locomotive Works, and described in our March issue, is now at work on the Los Angeles division, and giving excellent satisfaction. Her run is over the twenty-six-mile hill from San Bernardino to Summit, which runs from one hundred and sixteen to one hundred and sixty-eight feet to the mile. The two passenger giants, No. 1300 and No. 1301, are pulling trains No. 7 and No. 8 between Barstow and Bakersfield, and are also doing splendid work on this well-known hump.

A CAR FOR INVALIDS.

AMERICA has given Europe many valuable ideas for the promotion of comfort and convenience in railroad travel. This country first used sleeping-cars and dining-cars. Occasionally, however, other countries return the compliment by setting the United States an example worth following.

On one of the English lines, the Great Northern, a special car has been provided for persons who are ill or have been injured by accident and can afford to pay for these exceptional accommodations while traveling. At one end of the car are two toilet-rooms. At the other end are two small compartments, with narrow passageways, or corridors, along the side.

The central portion of the coach is spacious and resembles a large parlor, though it has long couches and a bed for use at night. There is room enough for two or three armchairs, and exceptionally large windows afford a fine view of the country by day. During the hours of darkness the car is lighted by electricity. Portable tables, for meals and card-playing, are stored out of sight.

Though the car is meant chiefly for an invalid and the two or three companions whom a sick person would be sure to have, it can also be employed as a parlor-car for a small party of travelers. Steam heat, when necessary, rich carpets, and elegant upholstery add further to the attractiveness of the car.—*New York Tribune Farmer*.



DEFENDING THE PASS.

BY KATHARINE EGGLESTON.

A Bouquet, Two Traveling Bags, a Joke, and Some Other Things Play Their Parts in this Romance.



OO-TOO-TO-TOOT! Too-too-too-too!"

It was an imitation of brass band and orchestra combined, meant to suggest the impressive strains of the wedding march. The performer held a big bunch of bride's roses high above his head to keep the appalling length of white ribbon from sweeping the platform.

A riotous volley of laughter greeted his appearance.

The girl who was stirring up the excitement stood in the center of the group, her eyes shining and her lips parted over her pretty teeth.

They were giving her the kind of send-off the most popular girl of the house-party ought to have, particularly when she has the discretion to leave just as there begins to be a pressure on other girls' toes and an uncertainty about the anchorage of other girls' beaus.

Jimmie Linn presented his bouquet with a flourish just as the train came in. He seized all the luggage about—two alligator bags and umbrella—and went into the Pullman.

By processes the girl detached herself from her friends, while a would-be passenger waited to mount the steps she occupied.

At length, she went in, carrying her tell-tale bouquet and followed by the patient passenger.

"There you are!" Jimmie announced as he set her umbrella up in the corner.

"All aboard!" followed by a chorus of warning from his friends came from outside.

He seized the girl's hand.

"Good luck! Happiness! All the cream!" he shouted amiably.

Then he plunged toward the door. The other passenger stood in the aisle. A climax to his joke suggested itself. He grabbed the surprised man's hand.

"You're the lucky man, all right, all right!" he said, frantically wringing the hand he had captured while the porter and the other travelers grinned appreciatively at the bridegroom.

Then, having done as much mischief as the time allowed, Jimmie fell off the train.

Gertrude Fearon sank limply into her seat. The ridiculous bouquet cavorted into the aisle.

The bridegroom, with a hardened face, bolted toward the smoking-room, leaving the porter to render the service he should have delighted in.

"Heah's youah bouquet, madam," Joe said, shoving the terrible trophy into Gertrude's unwilling hands.

"I'm not—" she was beginning, when the conductor appeared and waked her to the real extent of her difficulty.

"De gemmun am in de smokin'-room, suh," Joe announced, with obvious disapproval of

a groom who flagrantly deserted to leave his bride to face the idle curiosity and the conductor alone.

"I—I have my ticket," Gertrude said hurriedly, as the conductor started away. "It's a pass."

She took it from her purse with trembling fingers. If only she need not use it! If she had not counted on it and spent almost all her money, except enough for the small expenses of her trip!

"Mrs. Lucien Wallace," the conductor repeated as he made the record.

The words sounded like a knell to Gertrude. She had accepted the pass with such delight when Mrs. Wallace offered it. Unable to profit, herself, by the transportation that came to her husband from advertising the railroads in his paper, she insisted on Gertrude making use of the privilege.

Now, this very pass made it next to impossible to explain that she was not a bride, and that the flowers and congratulations were a joke. She would merely substitute one untruth for another, for the pass forced her to be Mrs. Lucien Wallace.

The fright that seized her at the thought of coolly tearing down the defense of the pass convince her that she would arouse suspicion.

It did occur to her to send for the man and ask him to agree to the misunderstanding till she reached Chicago, where she changed trains. But her pride shrank at throwing herself on the mercy of a stranger. He might presume, might act up to the rôle into which Jimmie Linn had thrust him.

She would trust to luck. Appealing to him might be defending the pass at too great a cost.

Meanwhile, the man was busy wondering how he was to get his bag.

The conductor and Joe interrupted him.

"Mr. Wallace," the conductor began genially.

"My name's not Wallace," the supposed bridegroom objected.

Joe grinned. He knew the kind of brides and grooms who try to hide themselves, ostrichlike, under disguises that cover only their own heads.

"I want your ticket, madam," the conductor said, retiring from affability to professional brevity.

The man who denied the name of Wallace, because his name was Foster, handed it over. The fact that his ticket was to Chicago, the first change that must be made in the trip that Gertrude's pass indicated, did nothing to destroy the bride-and-groom theory.

"Porter, get my handbag. It's the alligator leather where the—the lady with the roses is sitting," he said, slipping a mollifying quarter into Joe's black hand.

Joe went on his errand, marveling at the ways of the newly wed.

He made up his mind that they had outlined a course of deception, but he knew that the first step had been balked. They had been caught and overwhelmed with the usual attentions, except the rice, for which he was duly grateful. But it looked like the kind of foolishness common to brides and grooms for them to be keeping it up after the cat was out of the bag.

The bride had left her seat when he reached it—and the roses were gone, too.

Joe faced the difficulty of two alligator bags exactly alike. Even his eyes, trained to observe the tale-telling of the small belongings of travelers, could not decide which bag was the bride's and which the groom's.

"Ef Ah wuz to git de wrong one, 'twouldn't make no real diffunce," he thought, laying hold of one.

The groom merely nodded when Joe set the bag down beside him and departed.

Presently, Gertrude reappeared—without the roses.

They were lying in the middle of the track a long way behind the flying train.

The Pullman conductor took Gertrude's berth ticket with no very flattering reflection on the kind of a groom who could leave the details of the great tour to his bride.

Joe confided to him that the groom was a "grouch," and the conductor did not approach him. If he meant to be disagreeable and leave his bride in full possession of the seat, it was his affair.

The sympathy of the two conductors and Joe went out to the pretty bride. They addressed her as "Mrs. Wallace," as they inquired about her comfort. The blood leaped into her face at every repetition of the name. It was shame at the lie she was acting that dyed her cheeks.

She was just beginning to be comfortable, to cease to watch the door for the appearance of the husband who had been thrust upon her, or the conductor who might take up her pass when the train stopped at a station where another road crossed the main line.

A crowd waited for the incoming train. Gertrude's eyes roved from one to another—to encounter a new dilemma. This was six feet tall.

It was Colin McMillin.

Staring over the heads about him, his

glance encountered hers. She saw him change countenance as if he recognized but could hardly believe that he actually saw her.

Her heart seemed to stop for an instant. He was making his way with center-rush vigor toward the car. If he came in, it would be with his characteristic vim. He would greet her as Miss Fearon, and his big voice would assail the ears of the men in whose hands her fate and the fate of her pass rested.

They would be waked to suspect that the groom in the smoking-room had reasons for avoiding the bride in the car. They might go to him and ask the questions that she was sure they had not advanced.

There was but one course open to her. She must forget, in the few minutes before McMillin could appear beside her, that she had ever known him. When he came in, she would—

The door swung in, and—he was there! He came rushing along the aisle with an eagerness that proved his memory better than hers, for as he stumbled over a suit-case in the way, she turned casually and looked at him. Then, quite as if the stumbling stranger had no further interest for her, she turned her glance out the window.

McMillin paused for a second, overcome with surprise, then, with uncertainty and confusion written large on his face, he went on through the car.

Gertrude breathed a long sigh. That was over. But, somehow, the relief she should have felt, did not come to her.

McMillin met the conductor.

"Hallo, Warren!" he said. "Do you happen to know the name of the lady, the young one with the light hair? She looks like a girl I once knew."

The conductor handed him Gertrude's pass.

"Humph! Mrs. Lucien Wallace. So she is married!" Colin observed, as he returned the slip of paper.

"I'm sure I used to know her, Warren. I think I'll find out," he continued as he started back into the car.

"Better not!" Warren warned. "She's got a regular bear—"

But McMillin was out of hearing. He approached Gertrude from behind, but with no effort at stealth. Indeed, there was something particularly assertive in his bearing.

"I beg your pardon, but were you Miss Gertrude Fearon?" he asked.

Gertrude gathered her wits together to meet the returning dilemma.

"Why—oh! Mr. McMillin!" she ex-

claimed, looking up at him with the brown eyes that had made him tractable on other occasions.

"Did you just go through the car?" she continued, with an air of puzzled inquiry that would have worked with any one less decidedly in favor of seeing things as they really were than as a very pretty woman wished them to seem.

"Yes, I did," he answered, moving her luggage and making a place for himself opposite her. "And you cut me purposely because you thought it would be kinder, or because you didn't want to be bothered with me."

"I—I wasn't sure," Gertrude stammered.

"You didn't want to be," he asserted. "But it is I. You see, I wasn't going to let you forget me."

He had always roused Gertrude's resistance. They had quarreled at the end of the visit she had made to his home town over a year before. Perhaps, she felt the mastery that reached out and sought to claim her, and steeled herself against it because she feared its strength and charm.

"Tell me about—him," he directed when she was silent.

"You tell me first where you are going," she fenced.

"That doesn't matter," he replied; "but I'll tell. I'm going home. So hurry up. It's the second stop from here."

But Gertrude seemed inclined to make haste slowly.

"Aren't you going to describe him?" he urged.

"Who?" she asked.

"Your husband, of course," he grumbled.

"How did you know?" she inquired.

"Saw your pass," he replied.

The brevity of his answers and the grimness of his face made Gertrude eager to find out just about how much he had really cared about her. If this desire had not seized her, she would very probably have told him of the embarrassing predicament in which she found herself and have had him go to the man in the smoking-room with overtures of arbitration. But she cared so much to know.

"Well, he is tall and—" she began.

"What's his business?" Colin asked practically.

"He—why, he's a newspaper man," Gertrude answered, deciding to use the real Mr. Wallace as the basis for her husband-building.

"Newspaper man! Why, I thought you'd marry money!" Colin said, mentally cross-

ing out one of the obstacles he had thought stood in his way.

"You must think I'm a poor sort of girl!" Gertrude exclaimed, turning the blazing brown eyes toward him.

"Maybe I just thought you wanted what it seemed to me you ought to have," he amended meekly. "Well—what else?"

"He's tall—" she began again, finding her imagination unequal to the task.

"You said that! Don't rub it in!" he objected, while he added an item in his favor on the credit side, then gloomily reflected that it was too late to make use of it now.

"And he is dark," Gertrude paused, looking at the brown head across from her.

"The description might apply to you," she said, putting her head on one side and studying him critically.

"It might. But it doesn't, worse luck!" he said regretfully.

"No." Gertrude agreed, finding a wicked joy in watching his deepening despondency.

"It must have been rather a sudden affair," he said, after a considerable pause.

"Yes, it was—very. Really unexpected." Gertrude assented with a cheerfulness that cut.

"Happiness thrust upon you!" he said bitterly.

"Ye—es," Gertrude assented.

"You are happy?" he demanded savagely. "Don't make it worse—that way!"

Evidently, the conductor had not explained that she was on her bridal trip. She prayed that the man in the smoking-room would not appear.

"I'd never know a moment's peace—if I thought—you were unhappy!" he continued, with such fervor that Gertrude thought she must prove her delight at her situation by launching into a description of the man who had won her.

She made him such a wonder of mankind that McMillin sat listening to her with unregenerate hate and jealousy turning his being bitter.

"Of course, you have his picture," he said, in a pause of her eulogy.

Gertrude knew that any woman so lately married and raving so ecstatically about her life-partner would have his picture in her traveling-bag.

She must pretend to look for it, only to discover, with tender regret, that she had not put it among her things.

McMillin lifted the bag on the seat for her. She plunged her hand into it, expecting to feel futilely among the knickknacks and

feminine apparel for the picture that was not there.

But her hand struck sharply against the heel of a shoe—a big shoe with a large and assertive heel.

"Why, this is not my bag!" she exclaimed.

"Not your bag?" McMillin asked, all interest.

Then it flashed across her mind that she had noticed the likeness in the two valises that Jimmie had put in the section. She guessed at the exchange that had been made. But she must explain to McMillin.

"Oh, it's all right! I understand now!" she said, laughing. "Jimmie has put something in my bag, just for a joke."

The prevarication had scarcely left her lips when she saw Joe approaching with the twin valise.

"Youah husban' in de smokin'-room wants his bag. Ah done tuk him de wrong one, madam," said Joe.

Colin stared at her with every line in his face settling to stiff rage. She shoved the bag to Joe.

"Is your husband with you?" McMillin asked with icy calm.

Gertrude glanced over her shoulder. She must explain; but she did not choose to lose out now by telling the conductors about it.

"I'll explain. You see—" she began.

A blue uniform appeared in the car and bore down upon them.

"Your stop, Mr. McMillin," said Warren.

"All right, Warren. Thanks," Colin answered as he rose.

He bade Gertrude good-by and hurried away.

He ran against the unwilling groom in the vestibule.

"Hallo, Mac! Where are you going?" he asked, with a delight that found no reflection in Colin's face.

"I haven't decided," McMillin replied, his mind divided between a straight and narrow path to Gehenna or the dull way to his own home.

"Come on to Chicago with me. I've taken a trip-lease on the smoking-room," was Foster's invitation.

The smoking-room! Gertrude Fearon's husband was in there. He would look him over.

"I'll do it, Foster," he decided.

McMillin looked curiously at the one man, who, with Foster, was in possession of the small room. He was elderly, well-groomed, and rather distinguished in appearance. He

could understand why a young girl might not care to have the elderly husband and the youthful lover meet. Perhaps, she had married for money, after all. Maybe that was the reason she had been so strenuous in her resentment of his words.

"Look here, Mac, I'm in a hole!" Foster grumbled. "Some idiot, when I got on the train just behind a pretty girl, congratulated me. She had a big bunch of bride's roses—so we were spotted as bride and groom, and I don't know her from the first Eve in the original garden."

"There's only one pretty girl in the car," McMillin commented absently.

"She's it—the bride—and I'm the groom, drat it! Won't I feel good when Lily and the kid met me at the station?"

"You mean that! Say, what do you mean?" Colin asked, waking to the fact that there were matters of interest outside of his own thoughts.

"Oh! I know what I mean, all right!" Foster exclaimed. "But what does she mean?"

"How?" Colin questioned.

"I happen to know that she isn't married at all. At least, I heard one of the men who came to see her off call her Miss Fearon."

Colin focused his attention on Foster.

"And the conductor calls her Mrs. Wallace! And they all call me Mr. Wallace! What do you think of that?"

"Why don't you ask her—" Colin suggested.

"Haven't I been sitting here for hours expecting her to send for me. Under the circumstances, I hate to go to her and run the risk of a throw-down! I've come to the conclusion, she's working some con game. If she is, the distance I keep from her is going to be some. If it was all straight, she'd have sent for me and untangled me from this matrimonial twist-up."

Colin could not explain, but his conviction that Foster was wrong grew as the evidence to prove his theory was offered.

"Oh, she's all right!" he asserted positively.

"Just judging from appearance, you're correct. But, I tell you, I hear the loose screw rattling!" Foster insisted.

"You are sure the man called her Miss Fearon?" McMillin asked.

"Double sure! He did it several times in my hearing," said Foster.

Colin rose abruptly. He did not stop to excuse his going to Foster. He hurried into the car.

Gertrude saw him vanish through a mist of tears.

She had believed that she had destroyed the last chance at what seemed a beautiful possibility by her double-dealing when the possibility presented itself beside her.

"Look here, Gertie," Colin began, ruthlessly sweeping aside small conventions, "what's the matter?"

"I thought—you got off—"

"I didn't. Please answer me. Tell me what's wrong?" and he took her hand in both of his.

"Oh, don't! What will they think?" Gertrude whispered, watching for the conductors.

"I won't let you go till you tell me!" Colin insisted. "Have you a husband?"

"No, I have a pass!" she wailed.

"Do you want one?" Colin asked.

"Mercy, no! This one is bad enough! I never want another!" she cried. "It has Mrs. Wallace's name on it. I had to pretend that I was married. And that man—"

"I mean, do you want a husband?" Colin asked a second time, keeping intently to the main issue.

Gertrude had become habituated to thinking of her pass above all else. It cried out now for protection. If she told this big man the truth, he would embrace her before any one who happened to be looking, and the whole fantastic fortification she had built would be dashed to ruins.

"I—I haven't any real use for a husband," she temporized.

"Come out on the platform, and I'll show you one!" he said, rising and, still holding her hand, forcing her to follow.

"We'll let old Foster out of the smoking-room when we come back," McMillin said, with huge magnanimity.

But Foster was picking up his bag to get off of the train in Chicago when they thought of him again.

Man and wife can't run in two sections. They've got to take the same schedule and running-orders.—Confessions of an Old Con.



Light Runs On the Reading.

BY DEAN VAN DER VEER.

RAILROAD life and the railroad business are pretty serious things; but, like all things of great importance, they have their lighter, humorous side. Mr. Van Der Veer, while making a trip over the Reading, got what one might call some inside side-lights on this humorous side, and here he retails them for the benefit of our readers. A half-hour spent on this side of the fence will be a half-hour well spent. Come on in.

How Finen's False Teeth Carved Out the Destiny of Trainman Rourke, and a Railroad Man's Adventure in the Wholesale Trade.



THE Rose of the Reading Railroad" was an American Beauty of the loveliest and rarest variety. She grew up in the Metzler Nursery, the gardener being Charlie Metzler. The official name of this "Rose of the Reading" was Rose Metzler, and the official position held by her father was that of Eastern shipping-agent of the Reading Railroad, at 67 Commercial Wharf, Boston.

It was that day, a year or so ago, when a certain edition of new pennies came out of the mint at Philadelphia. That day, "The Rose of the Reading" was adorning her father's office in Boston, at the address named above, when Charlie Klink appeared. This is what they said:

She. "How, Charlie Klink?"

He. "How, Rose. Where's your father?"

She. "He's gone to find a car-load of your advertising stuff that seems to have been abandoned because no one wanted to read it."

He. "Look, Rose. Here's one of the brand-new pennies just out of the mint. I got it this morning just as I was leaving Philadelphia, and I brought it specially for you."

She. "Thanks a whole lot. I'll give it to father. He's daft on new pennies. Collects 'em by the ton. He'll be delighted with this one."

He. "No, Rose; you keep that one. I'll get another one for your father. I'll bring it to him here in about an hour from now."

Charlie Klink's Pennies.

And Klink went away from there; and the "Rose of the Reading" continued to adorn the office of the Eastern shipping-agent of the Reading at Boston till said agent came in and was shown the new penny that Charlie Klink had brought her fresh from the Philadelphia Mint.

"And he's gone to get you one of these new pennies, too, father," she added.

"He has, has he?" answered Father Charlie Metzler, picking up his hat, and adding: "I'll be back before Charlie Klink returns, Rose."

And Charlie Metzler also went away from there, carrying in his hand, be it added, an empty clay flower-pot.

Charlie Klink was the Reading's chief publicity man. He had been making things public about the Reading for thirty years. On the day in 1906 when given the chieftainship

Then came the day in 1909 when Charlie Klink had rounded out thirty years of salary-gathering from the Reading. That day, again, a drove of his brother officers and gentlemen of the publicity office and advertising office and real-estate office swooped down upon Charlie Klink as he sat at his desk, and buried him alive in gladioli, and filled his ears with speeches and felicitations and congratulations, till Charlie Klink fell back in his swivel-chair, and just couldn't do any-



"I WENT TO THE BANKS AND GOT ALL THEY HAD."

of the department, his friends of the Reading in Philadelphia informed him that the rector of his church wished him to come that evening to the Majestic Hotel to discuss religious work.

When Charlie Klink arrived at the Majestic, he was ushered into a dining-room that was trimmed all over with white chrysanthemums and green asparagus, in the middle of which a table groaned under a burden of nectar and ambrosia, while around the board, attired in evening dress, sat twenty-five of Charlie's Reading colleagues. It was one grand, merry surprise ha-ha in honor of the newly appointed chief of the git-it-into-print factory.

thing but choke nearly to death from a sob that stuck in his throat.

Charlie Metzler's two specialties were: first, new pennies; second, the history of the Reading. He had every incident in the history of the Reading always on the tip of his tongue for the edification of those who wished to hear all about it.

Once he wrote up a lot of more or less historical Reading Railroad incidents for a magazine published by the railroad company called *The Pilot*. Metzler's little pieces in *The Pilot* were printed anonymously.

The editor, Gordon Chambers, started a guessing contest forthwith, by asking the Reading men to write down their guesses as



"WHAT'S FINEN'S TEETH GOT TO DO WITH THAT BOOK?"

to the identity of the author of the stories. Every guesser swore that the man who wrote those articles was one who had personally participated in the episodes described.

Whereat Gordon Chambers laughed in his sleeve, while Charlie Metzler smiled out loud—because every one of the incidents which Charlie Metzler had written up had occurred before ever he had reached the job-accepting age on the Reading or on any other road.

Now, these two Reading boys—Charlie Klink and Charlie Metzler—had both crowded so much experience into their years of toil for the Reading that each was certain that the other could hand him nothing new under the sun. Each kept ever on the watch-out, therefore, lest the other get "one on him."

So, when Charlie Metzler learned from his daughter that Charlie Klink had gone away from there to fetch him back a new penny, he thought he saw through the enemy's game; and that's why he, too, went away from there, to return in about half an hour with a twinkle in his eyes.

Soon after Charlie Metzler's return to his office, in walked Charlie Klink, in accordance with the threat which he had made.

"Hallo, Charlie!" said Klink to Metzler.

"I've brought you one of the new pennies issued to-day."

"That's right smart hearty of you, Charlie," said Metzler to Klink.

"Yes, Charlie," said Klink to Metzler, "knowing your weakness for new pennies, I've brought you, not one, but twenty-five. Yes, sir; a whole quarter's worth. Had a time gettin' 'em, too. Had to scurry among my politician and banker friends, and get them to use their influence at the banks in my behalf, getting a few of the coppers here and a few there, till finally I corralled these twenty-five! Phew! It was hot work."

"It was mighty enterprising of you, Charlie," said Metzler to Klink. "I've collected a lot of these brand-new pennies of to-day's issue myself—and now I'll just add yours to my collection."

While speaking, Charlie Metzler reached up to the cobwebbed shelf and took down the clay flower-pot. He shook it now, close to the ear of Charlie Klink, and it sounded like the jingle of brand-new pennies of that day's issue.

"You see, Charlie," said Metzler to Klink, "I didn't know you meant to bring me some of the new pennies, so, early this morning, I went to the banks and got all they had—about five dollars' worth. That's why you had such a time getting *your* quarter's worth. Thanks, all the same. A numismatic scientist like myself doesn't mind having five hundred and twenty-five of to-day's issue of new pennies."

And Charlie Metzler sat the flower-pot back on the shelf.

I met Charlie Klink at the general offices at the Reading terminal in the City of Brotherly Love, and he kindly handed the Reading Railroad over to me, lock, stock, and barrel.

I forgot to tell Klink that this yarn was fit to print. And, now that I've blabbed it, I can only pray that when again I reach the Schuylkill we shall still be friends.

False Teeth Fatalisms.

Passenger-train No. 304, with Engineer Joe Finen up, stood at the station at Sellersville, on the Bethlehem Branch of the Reading. There was no apparent reason why that train should be standing still, because Con-

ductor Haas had already given the signal to get a move on. And now he gave the signal a second time. Still the train did not budge.

"What's the matter up there at the head-end, anyway?" he bawled, giving the signal for the third time.

Not a wheel turned, and Conductor Haas became curious. He strode toward the head-end.

"Hi, there, Joe Finen, what's the matter with you? Why don't you get a move on?" he shouted.

When he came abreast with the engine, he peered round in search of the man whom he was upbraiding; but Engineer Joe Finen was out of sight.

"Where is he?" Haas asked the fireman.

"He's down under the machine," answered the man on the left.

"What's happened to him?"

"He sneezed."

"Sneezed! Say, young feller, that don't go with me—see? What's Joe Finen's sneezing got to do with delaying this train? Hi, you in there!"—stooping down and peering at the engineer, who was on his hands and knees under the engine. "What you doing there, Joe Finen?"

"I'm looking for something, Haas."

"What you looking for?"

"I sneezed."

Dentistry in the Dirt.

"So I hear. Quit this foolin'! Why don't you pull out of here?"

"I tell you, Haas, I'm looking for something. I tell you, I sneezed 'em out."

"Sneezed *what* out?"

"My teeth—and I'm looking for 'em."

"*That's* the worst excuse for delayin' a train I ever heard of!" exclaimed Conductor Haas. "I've heard of trains bein' delayed by grasshoppers on the track, and by trout in the boiler, and by snakes in the fire-box; and I've heard of trains bein' delayed for other reasons miscellaneous; but I never before heard of a train bein' delayed for a gosh-dinged set of false teeth sneezed out of a engineer's mouth. Yes, *this* is the worst ever!"

"I've found 'em!" yelled the engineer. "I'll pull you out now. Sorry to have delayed you, Haas."

"Look here, Finen," said the conductor, "I've got to *report* this delay. What excuse shall I give?"

"Tell 'em it was for a whole lot of very important reasons to the man running this engine," answered Engineer Finen. "Tell

'em this train was delayed because of needing two molars and four crushers and eight grinders and three wisdoms before being able to proceed. And if that ain't enough for a report, tell 'em that the engineer of this train ain't a man to abandon twenty-seven dollars' worth of eating apparatus to save seven minutes to please any condemned-railroad that ever was—see?"

Now, you who read think this novel ends right here, do you not? But it does not end here. There's a sequel. What I've narrated is only Part I of the story. Part II is a thriller.

Dental Deduction.

The hero of the second part is a Reading trainman named Ed Rourke. Rourke heard of the catastrophe that had overtaken Joe Finen at Sellersville Station; heard of the sneeze, and of the outgoing impetus given to Finen's false teeth by that sneeze; heard of the ensuing gravitation of the teeth to earth, and thence, by rebound, under the engine. And what he heard set Trainman Rourke to thinking.

Trainman Rourke's run was over the Philadelphia-New York Division. Suddenly now Rourke's fellow trainmen found that he no longer showed up, between runs, at Philadelphia's moving-picture shows; neither did he come now to the P. and R. Young Men's Christian Association rooms for games of checkers. It was also noted that Rourke had stopped taking girls to shows. Altogether it became manifest that Rourke was deliberately shunning his kind in his off-duty hours.

At last a certain trainman found Rourke in Rourke's furnished hall-room, poring over a book which, to the visitor, looked like a tome written in Greek.

"What's that book?" asked the visiting trainman.

"It represents the result of much concentrated thought evolved in my brain," answered Trainman Rourke.

"You mean you *wrote* that book, Rourke?"

"No; I'm merely studying it. The concentrated thought I spoke of took place in my brain after hearing about the teeth that Engineer Joe Finen sneezed out of his mouth."

Money in Molars.

"What's Finen's teeth got to do with that book?"

"Everything. Supposing Finen had not found those teeth? Or supposing they had been ground to dust under the driving-

wheels? Well, in that case, Finen would have had to buy a new set of teeth, would he not? Now, then, I hear that he rated the value of those teeth at twenty-seven dollars. When I got to doing my concentrated thinking, I took as my premises the fact that if Finen had lost his teeth beyond recovery, the person who would have supplied him with new teeth would have been a dentist.

"That dentist would have been paid twenty-seven dollars.

"From these premises I reached the conclusion that there must be a lot more money in being a dentist than in being a railroad man. I'm studying to be a dentist."

Trainman Rourke meant business, too. He studied till he passed an examination admitting him to the Philadelphia Dental College. And then followed months and moons of more study—always between runs, for he held down his trainman job good and hard all the time he was burning the midnight electricity. In every off moment he gathered the honey of learning.

Finally Rourke got his reward. He showed up at the Reading terminal in Philadelphia with two sheepskins, one being a diploma from the Philadelphia Dental College, and the other a certificate from the Pennsylvania Board of Regents, setting forth the fact that one Edward Rourke, having qualified as a dental surgeon, was hereby licensed to practice as a D.S.

With these sheepskins in a roll under his arm, Rourke went to Joe Finen and said:

"Mr. Finen, supposing you should again sneeze your teeth out, and supposing that you should not be so fortunate as to find them, what would you do? You'd go to a dentist, and pay him twenty-seven dollars for a new set of teeth, wouldn't you?"

A Transaction in Teeth.

"Well, sir, when comes the day of that sneeze; you just patronize one who used to work on the trains you pulled, the same being myself. I won't charge you a cent over forty-seven dollars for a new set of teeth.

"My forty-seven-dollar teeth in your mouth, Mr. Finen, will be worth the extra twenty dollars, because they'll fit you so that you couldn't sneeze 'em out with even a forty-horse-power sneeze."

"Ed," answered Finen, "I'll be your first customer or client or constituent, or whatever you call the person that pays money to a dentist. I'll let you make me a new set of teeth right away. 'Cause, to tell the truth,

I've been sneezin' out these here ones nearly every time I've sneezed for the last two or three years."

Whitehead's Wholesale Sleuthing.

It was a dark, dismal night in August, 1909. Torrents deluged the earth, lightnings flashed their fiery darts, and thunders rolled along the vaulted skies. Just then Detective Whitehead, of the Reading Railroad, with his great big black slouch-hat pulled well down over his mustache so as to conceal his handsomeness, said to five other slouch-hatted sleuths who were with him:

"To-night, men, we'll wholesale 'em!"

"We'll wholesale 'em!" chorused the five, feeling of their guns, and retiring still farther into the shadows of the water-tank just outside Eddystone, in the Keystone State.

"By Heavens," went on Detective Whitehead, "they shall not escape us this night. 'Tis a most measly night, and one most suited to our purpose. For this night, of a surety, the biggest number of them will entrain for the city, to avoid trudging afoot through the wild commotion of the elements."

Right here I must furnish a key to the situation. For some months the employees of a certain factory, at the aforementioned town of Eddystone, had been in the habit of taking possession of a freight-train of the Reading Railroad, every evening after the whistle blew for the day-shift to quit.

Freight-Train Joy-Riders.

On that train, then, the men—some two hundred or three hundred strong—would ride into Philadelphia free. They would ride inside of empty cars and outside of the filled cars, on the roofs, and wherever they could get a hold on that freight that always so accommodatingly passed the Baldwin Works just as the men were quitting for the day.

The Reading Railroad and the factory owners both wanted the men to cease riding thus, and made their wishes known to the men in the form of big notices posted up at the gates of the works.

Did the men pay heed to the notices?

No, they rode into Philadelphia every night just the same, literally capturing the train; for how could a few caboose men repel boarders who outnumbered them fifty to one?

Finally the Reading's general manager called Detective Whitehead into his sanctum and told him that "those factory hands must stop riding on that train instanter."

Thereupon Whitehead selected two of the Reading's best sleuths as his aides. At the same time, the head of the Eddystone detectives selected two of his best men as his aides. And that made the total of six in the slouch-hats who were standing in the shadow of the water-tank, and in the pouring rain, near Eddystone, on the terrible night in question.

A Harmless Hold-Up.

The six were waiting for the freight to come by. The engineer had orders to slow up when he reached the tank, and the trap was ready to be sprung, Whitehead describing his intentions very aptly when he said: "We'll wholesale 'em!"

Pretty soon the six sleuths heard the freight coming, saw her headlight, were delighted to see the engineer slow up as he neared the water-tank.

"Now, men," said Whitehead, "we'll each take a separate car. I've already told each of you what to do when once you get inside of your car. This train was run with all empties to-night purposely, so we could catch 'em all inside the cars! All ready now! Don't show any sign of excitement till you get into your cars and see the whites of the enemies' eyes."

As the train pulled up at the tank, the sleuths separated, and each of the six chose a different car, and swung aboard.

Whitehead himself climbed in through the door of the car nearest him. It was crowded with men, all from the factory—and they were old offenders.

Whitehead looked them over a minute, then suddenly whipped out his gun, and cried:

"Hands up, everybody!"

Up went fifty pairs of hands.

"A hold-up!" cried one of the men.

"Ain't it the limit!" cried another. "Right within a few miles of Philadelphia, too!"

Further remarks were made—many of the men saying they didn't object to the hold-up, 'cause they hadn't a cent for the hold-up man, anyway.

"Now," said Whitehead coolly, having made sure that every hand in the crowd was held aloft, "all you men get out of this car, excepting you four," and he flashed his gun at the four men nearest him.

"You four stay right here with me," he went on. "All the rest of you get out—and don't one of you lower your hands till you get out there in the rain. Hurry up, now!"

Like sheep the men tumbled over one another in their haste to get away from the "hold-up man." When all had gone, save the four who had been commanded to remain, Whitehead said:

"Now, then, you four are under arrest."

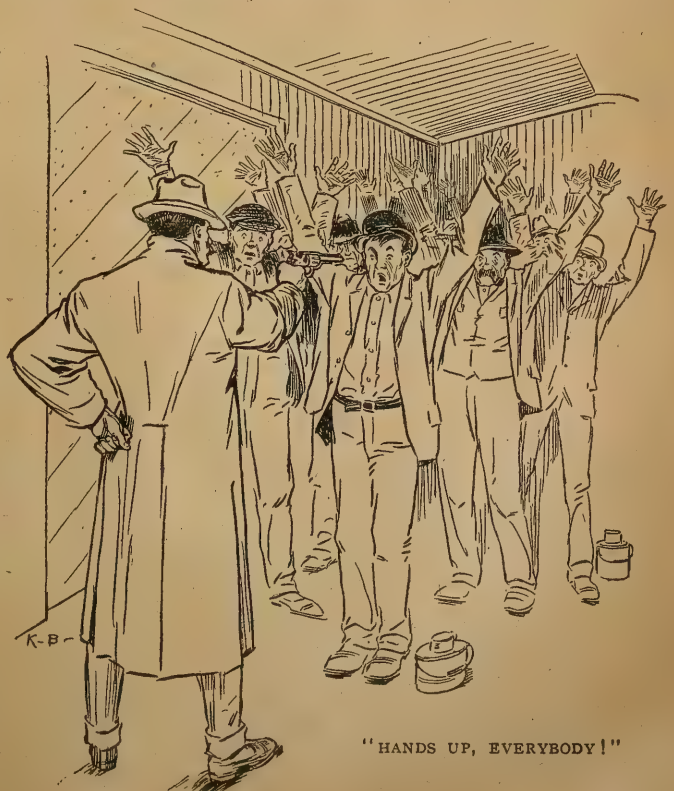
"Arrest!" they exclaimed, astounded. "Ain't this a hold-up?"

"No, t'ain't," answered Whitehead. "I'm going to make examples of you four men. Come with me."

Meantime the other sleuths, in their different cars, had each taken prisoners by precisely the same method.

And Whitehead whispered confidentially, in a dark corner of the Reading terminal:

"Not one of those six-shooters was loaded. We six special officers held up more'n two hundred factory hands without weapons of any kind except six psychologies."



"HANDS UP, EVERYBODY!"

CLASSIFICATION OF LOCOMOTIVES.

(WHYTE'S SYSTEM.)

(Reproduced from the American Locomotive Company's Bulletin.)

040		4 WHEEL SWITCHER	062		6 COUPLED & TRAILING
060		6 WHEEL SWITCHER	082		8 COUPLED & TRAILING
080		8 WHEEL SWITCHER	044		FORNEY 4 COUPLED
0100		10 WHEEL SWITCHER	064		FORNEY 6 COUPLED
0440		ARTICULATED	046		FORNEY 4 COUPLED
0660		ARTICULATED	066		FORNEY 6 COUPLED
0880		ARTICULATED	242		COLUMBIA
2440		ARTICULATED	262		PRAIRIE
2660		ARTICULATED	282		MIKADO
2880		ARTICULATED	2102		10 COUPLED
2442		ARTICULATED	244		4 COUPLED
2662		ARTICULATED	264		6 COUPLED
2882		ARTICULATED	284		8 COUPLED
240		4 COUPLED	246		4 COUPLED
260		MOGUL	266		6 COUPLED
280		CONSOLIDATION	442		ATLANTIC
2100		DECAPOD	462		PACIFIC
440		8 WHEEL	444		4 COUPLED DOUBLE ENDER
460		10 WHEEL	464		6 COUPLED DOUBLE ENDER
480		12 WHEEL	446		4 COUPLED DOUBLE ENDER
042		4 COUPLED & TRAILING	286		8 COUPLED DOUBLE ENDER

A CAB WINDOW FOR NIGHT RUNS.

Santa Fe and Chicago and Northwestern Install Device for the Better Viewing of Tracks by Engineers.

THE Santa Fe and the Chicago and Northwestern have adopted a device invented by C. M. Goodrich, of Clinton, Iowa, an engineer on the latter road, which is said to eliminate an annoyance to which engineers are subject on night runs.

Every time the fire-box door is opened a reflection from the front cab window makes it impossible for an engineer to see anything but his own image in the window, which compels a frequent change of focus of his vision, and the effect is damaging to the eyesight. On high-speed runs, an element of danger is introduced owing to the possibility of important signals not being seen or obstructions escaping attention.

The principle of the device referred to consists essentially in setting the front cab window in such a position as to greatly increase its angles of incidence and reflection, thereby projecting the image

of the cab interior against the side of the cab itself instead of directly back toward the engineer.

To overcome another difficulty on both night and day runs due to the accumulation of frost on the interior of the ordinary cab window in cold weather a small shutter is pivoted near the forward outside edge of the window frame. In this position the shutter acts as a scoop directing a current of cold air through a series of perforations, past a deflector-plate, and in a thin film, across the interior face of the window.

This shutter is so arranged that at the will of the engineer its forward edge can be brought into contact with the housing along a line forward of the perforations mentioned, thus cutting off the flow of the air across the plane of the window when atmospheric conditions are such as to make it unnecessary.

I'm not popler with sweethearts, but wen they get marrid they are always givin' me pie. There's a reason.—The Call Boy.

Making Railroad Travel Safer.

BY A. H. SMITH,


Vice-President and General Manager, New York Central Lines.

NEVER before in the history of American railways has such a record for comparative safety been made as that recorded during the year ending June 30, 1909. Of the 368 companies reporting to the Bureau of American Railway News and Statistics, no less than 347, operating 159,657 miles of track and carrying 570,617,563 passengers, went through the year without a single fatality to a passenger in a train accident.

While the scarcity of accidents is due in a great measure to the perfection of safety devices and improvements in track and rolling stock, standardization of equipment and operation play an almost equal part with the inventions of Westinghouse, Janney, and Coleman. The adoption of such standard improvements as gage, couplers, and train orders has had its measure of effect.

Vice-President Smith treats separately of every factor that has played a part in the safeguarding of travelers and trainmen, with an insight and understanding that can only come from long years of experience as a railroad man.

The Growth and Development of Up-to-Date Railroad Equipment and Methods of Operation, and the Unceasing Struggles to Find Practical Safety Devices.

N examining into the progress of safety in transportation by rail, it seems necessary to acquaint ourselves with its beginnings and growth; to determine the elements upon which its development re-

lies, and the necessity which has invoked the various steps of improvement in the plant devoted to transportation, and the art of employing and controlling it in the performance of a public service.

The lay observer will scarcely appreciate, in the absence of the actual analysis, that there exist so many branches of this subject, each branch of which, by itself, may be considered the object of a separate professional science and a distinct human industry.

We will consider, however, the beginnings and the growth of a few of the more important and striking items and their relationship to the state of the art, as portraying, in a more graphic manner, the adjustment, if you

may call it such, of safety to progress, or as the subject has been assigned to me, "Progressive Safety."

Automatic Couplers.

Owing to the large number of accidents occurring in 1869, F. D. Adams, of the Boston & Albany Railroad, recommended to the Master Car Builders' Association, at its third convention, during that year, that a uniform height should be established for couplers; their failure to meet when cars came together being considered the cause of numerous accidents.

In 1871 that convention adopted thirty-three inches as the standard height for standard-gage cars. At the convention of 1873, M. N. Forney urged that a committee investigate the cause of accidents, and make recommendations. This committee in the following year gave as the principal cause the same as

reported by Mr. Adams eight years before. They pronounced the tests of automatic couplers to date a failure.

Another committee, at the same convention, gave the first recognition to automatic couplers by reporting that a great advantage would be derived from a uniform draw-bar, such as would be accepted as a standard, and which would be a self-coupler. During several years following, various models were examined, but nothing was found to meet the demands.

Testing the Janney.

In 1887 the executive committee reported in favor of the Janney type of couplers and all other forms that would automatically couple with it under all conditions of service. This report was adopted in 1888 by a vote of 474 for and 194 against. The executive committee then undertook to establish contour lines, drawings, and templets as standard, but found that the Janney patents covered the contour of vertical plane couplers.

This was remedied in 1888, when the Janney Coupler Company waived all claims for patents on contour lines of coupling surfaces of car couplers used on railroads that were members of the Master Car Builders' Association, which enabled the association to formally adopt in all respects this type of coupler as standard.

At the convention of 1889 such action was taken, on motion of Mr. Voorhees, General Superintendent of the New York Central Railroad, and since that time this type of coupler has been the standard, and called the Master Car Builders' Coupler.

In 1893 Congress enacted a law requiring all railroads engaged in interstate commerce to provide on all cars and locomotives a continuous power brake capable of being controlled by the engineer in the locomotive cab, and also automatic couplers which would operate by impact. January 1, 1898, the date which was set by which these changes must be made, was subsequently extended two years.

We now have uniformity in height and contour to insure perfect contact between all classes of equipment, and a positively locked knuckle.

The Introduction of Air-Brakes.

As the density of traffic, and the speed, together with the weight of equipment, developed, following upon the greater transporta-

tion to be undertaken, the question of brakes became an important factor in the safe operation of trains. More efficient brakes were needed, the essential characteristics being that they should be continuous throughout the length of the train, simultaneously applied and released, with a single point of control.

In 1869 George Westinghouse, Jr., brought forth what is known as the straight air-brake, consisting of a pump, main reservoir, three-way valve, brake-cylinder, and train-line. Application was made by admitting air from the main reservoir into the train-line. The brakes were released by reducing the train-line pressure into the atmosphere through the three-way valve. The brakes were useless if there was a leak, a break in the air-line, or a parted train.

With these shortcomings in mind, the automatic air-brake was produced in 1873, in which the method was reversed. With the addition of an auxiliary reservoir under each passenger-car and a triple valve, application of brakes was secured by reducing the train-line pressure, while admitting air from the main reservoir raised the pressure and released the brakes. On the application of the automatic air-brake to freight-cars it was found the reduction of pressure was not quick enough to set the rear brakes promptly, and in consequence accidents occurred from bunching of the cars.

Signaling Devices.

However, the following January witnessed the introduction of the Westinghouse quick-action air-brakes, which corrected the previous trouble and made practicable the application of air-brakes to long freight-trains.

Continuing from this time, there has been marked improvement and development in all features of the apparatus, without, however, modifying the essential elements of which it is constituted.

The need of indicating the conditions of the road to trains came with the increasing traffic and speed. As these conditions developed in England before they did here, the first steps were taken in that country.

In 1834 the Liverpool and Manchester introduced the first system of fixed signals, consisting of an upright post with a rotating disk at its top, showing red for danger, with absence of indication by day and a white light by night for clear.

It was found that a long, narrow surface could be seen farther as projected against the horizon or landscape than the same area

in a square or circle. Making use of these results, Sir Charles Gregory, in 1841, designed and erected at New Cross the first semaphore signal.

There was no communication between stations, each signalman displaying his signal at danger after the passage of a train until a certain time had elapsed, when it was cleared. The only information conveyed to the engineman was that the preceding train had passed the station at least the required time before him.

Electricity Helps Out.

The failure or inability to act with sufficient promptness at the display of the danger position and the consequent collisions led to the installation of additional signals to give advance information to the engineman of the position of the signal he was to obey. Thus we have clearly portrayed the inception of the present block and caution signals.

C. V. Walker, of the Southwestern Company, introduced the "Bell Code," which was the first audible method of communication between signal stations. The same year Mr. Tyer supplemented this with electric visual signals, the object being to give the operator indication of the signal having been received and given, and at all times to show the exact position of the signal itself. This suggested the space interval between trains, in place of the time interval, making signal indications definite.

In 1858 the positive block system was established in England, based on the space-interval system.

The First Block System.

Making use of telegraph communication, Ashbel Welch, chief engineer of the United New Jersey Canal and Railroad Company, devised and installed, during 1863 and 1864, the first block system of signals in this country, on the double-track line between Philadelphia and New Brunswick. Signal stations were suitably spaced, and at each station a signal was provided, visible as far as possible each way.

The signal itself was a white board by day and a white light by night, indicating clear, shown through a glass aperture two feet in diameter in front of the block signal-box. For the danger indication a red screen fell to cover the white board or light.

On a train's passing a station, the signal-

man released the screen, which fell by gravity, and did not raise it until advised by telegraph that the preceding train had passed the next station, thereby maintaining a space interval.

Thus was evolved the telegraph block system, still generally used, with modifications of apparatus and signals, on lines of light traffic. Elaborations of this system were later installed, following more closely the English practise, perhaps reaching the most complete development upon the New Haven and New York Central lines, where it is still in use.

Notwithstanding numerous improvements in apparatus, the same practise of fixing a positive space interval by means of communication between block stations still holds.

The addition of track circuits for locking and indicating purposes and interlocking between stations, more fully effected by the introduction of the Coleman block instrument, in 1896, has thus evolved the controlled manual block system as now used.

First Automatic Signals.

In 1867 Thomas S. Hall patented an electric signal and alarm-bell, used in connection with a switch or drawbridge. Its shortcoming lay in the fact that a break in the circuit or failure of the battery gave no danger indication. To correct this a closed circuit was necessary, although more expensive.

In 1871 Mr. Hall put in operation the first automatic electric block system on the New York and Harlem Railroad, between the Grand Central Station and Mott Haven Junction. It was normal safety. The wheels of a passing train striking a lever completed a circuit, which put the signal to danger after the train, and held it so until the succeeding signal went to danger, when a separate circuit was completed, which released the former signal, allowing it to return to clear.

Track Circuits.

The disadvantage in having the wheels of a train strike a lever to complete the circuit led F. L. Pope to experiment. After a successful attempt in transmitting an electric circuit through an ordinary track with fish-plate joints, he made a signal test at East Cambridge, Massachusetts.

A section of track was insulated from the rest, with a wire circuit, including a battery and electromagnet for operating the signal, fastened at either end to the opposite

rails. The metal wheels and axles completed the circuit, throwing the signal to danger against following trains. A detent served to keep the circuit closed until the next signal was reached, when a separate circuit released the detent, permitting the signal to clear.

In 1879 this system was put in service, and, with some alterations, still remains in some localities.

In the semaphore system, numerous failures have occurred due to the formation of ice and sleet upon the blades. This has led to the introduction of the so-called upper quadrant operation; that is, the motion of the signal being from horizontal to an upwardly inclined position and back.

On account of the wide-spread prevalence of electric lighting and the building up of the territory adjacent to railroads, changes in the color indication of night signals have been adopted generally in such localities, using green instead of white for the safety indication.

Interlocking Switches.

Developing with the manual operation of signals, and as a safeguard against mistakes of the signalmen, interlocking grew up as a means for preventing conflicting signals being given at the same time. As with signals, so with interlocking, England led at first. After a trip to that country in 1869, Mr. Ashbel Welch recommended the advantage derived from the English method of operating switches and signals in large yards and terminals, where the entire control fell to one man so located as to be in touch with the whole situation and equipped with a machine that would not permit of setting up conflicting routes. The plea resulted in the order of a twenty-lever Saxby & Farmer interlocking machine, which was installed in 1874 on the New Jersey division of his line.

Railroads were prompt to see its advantage, and in a short time machines performing its functions were made and installed in this country, not only for the protection of railroad intersections, but for the control of large terminal layouts.

In 1876 the first power-operated interlocking system was perfected, which was the pneumatic type. In 1900 an all-electric interlocking system, advantageous where distant functions were to be embraced within the operation of the plant, and applicable to localities where electric traction was in use, was devised.

The more recent development of power-operated interlocking systems, with complete electric indication of the conditions on all tracks, has made it possible for larger systems to be consolidated under the control of a central plant, and thus under the direction of a central authority; these machines, being of a completely interlocked character, insure greater safety by the central control, as well as greater facility of operation.

The Growth of Train-Despatching.

In this country the first radical departure from the time interval and flagging method of operation came in 1851. The New York and Erie Railroad had established a single line of telegraph between Piermont, on the Hudson River, and Dunkirk, on Lake Erie, for company business.

The superintendent of telegraph, Mr. Luther C. Tillottson, and the division superintendent were together in the Elmira depot on one occasion when they learned that the west-bound express from New York was four hours late. At Corning an east-bound stock-train and a west-bound freight at Elmira waited for the express.

With this information, Mr. Tillottson suggested that the freight-train at Elmira could be sent to Corning and the stock-train at that point ordered to Elmira with perfect safety before the arrival of the express.

The move was successful, and encouraged similar operation, which shortly led to the adoption, with some modifications, of this train-despatching method on the Susquehanna division of the Erie. Its adoption over the entire line followed, in spite of the great opposition which Mr. Charles Minot, the general superintendent, met when planning for its introduction.

Some of the conductors and enginemen went so far as to resign their positions rather than run on telegraphic orders against the time of another train.

Standardizing of Orders.

This system spread rapidly to other lines, and, in company with other features of railroad operation, has been progressively developed and improved. One of the important elements of safety in the despatching practise has been the tendency to the same words in the same sequence to convey the same instructions, insuring a uniform understanding of the instructions instead of permitting a discretionary phraseology in originating or a

misunderstanding in construing the order transmitted.

The rules for train-despatching now prescribe the use of standard forms of expression for orders governing the movement of trains.

Within the past few years experiments have been made with a system of train-despatching by telephone, now in successful operation upon some important lines, and growing in extent. Advantage lies in the ability to use trained railroad employees who cannot work under the telegraph system, not being telegraph operators.

Car Construction.

The telephone despatching system not only insures a rapid distribution of information, but by its greater capacity enables a more complete knowledge of the state of the line to be had in the controlling office, as well as in all the offices tributary to the despatching system.

One of the early problems in transportation was to secure the carrying capacity of cars as well as safety. We have pointed out how it was necessary to add a guiding truck to the English locomotive, designed to adapt the same locomotive safely to American conditions.

Both the excessive wheel loads on four-wheel freight-cars and the greater liability to accident or derailment led to the use of four-wheeled trucks under cars.

Increase in Size.

The increase in lengths of passenger-cars, with corresponding increases in weight led, about 1880, to the quite general employment of a six-wheel truck instead of a four-wheel truck, and even eight-wheel trucks were used for a time, but rejected on account of the excessive length of wheel-base and other complications.

In the latter eighties experiments were made in the development of steel framing for car construction, and built-up steel underframes were introduced shortly after; at first on cars for mineral traffic, where excessive weights and capacities were required. The success of this type of construction has led to its adaptation at the present time to all classes of equipment, and not only steel underframes by complete steel construction in certain classes of service where the conditions require.

The question of steel cars and composite steel and wooden cars is having very care-

ful investigation and experiment at the present time.

The Safe Heating of Cars.

The original method of heating passenger-cars by direct radiation from coal or wood stoves was a source of discomfort to the passengers as well as a menace in case of disaster. This brought about in the late eighties the introduction of the Baker Hot Water Heater, which was a great improvement for the comfort of passengers, but still left a fire in the car.

In many instances of collisions and derailments during this period, especially in winter, the cars were set on fire and the wreckage consumed from the fire scattered from the stoves or heaters.

The growth in the capacity of locomotive boilers, and the perfection of the couplings between cars, has led to the present practise of car heating, which entirely eliminates the presence of any fire or source of danger from that source.

Car Lighting.

Car lighting has passed through the same stages as house lighting, possibly more gradually, on account of the greater difficulties. The old low-roofed passenger-cars were illuminated by candles about two inches in diameter, placed in racks along the sides of the car. With the advent of mineral oil, just before the Civil War, the candles gave place to oil-lamps.

For more than fifteen years this method prevailed, and while the presence of oil-lamps in wrecks contributed fuel to the flames, the proof that they were in any way the principal cause was lacking. Still, to eliminate this contributory feature, attempts were made to use ordinary coal gas, compressed in tanks on each car. This, however, proved unsatisfactory.

In 1870 a system of compressed gas made from crude petroleum had been invented by Julius Pintsch, of Berlin, and by 1887 had been put into a number of cars on European railroads. The light was too dim to satisfy American conditions. It was only a question of time, however, for its proper and adequate development to our needs, when its use became general, on the perfection of the lamp and burner.

For the last fifteen years electric lighting of various types has been in use on cars in an experimental way. While possessing advan-

tages perhaps in safety, owing to low voltages and small quantity of current, its general use has not yet been entirely practicable, owing to the complications involved, either in generating and satisfactorily controlling the current upon the cars, or in supplying it at terminals through storage batteries.

Equally important is the advancement of the rail and its fastenings. The type of metal rails, of which the bottom served as the running surface for flat wheels guided by a flange on the rail, gave place to edge rails on which flanged wheels used the upper surface of the rail before the day of the steam locomotive.

Of the edge type, the first were cast iron, fish bellied, in sections about three feet in length. They were supported by stone blocks or in cast-iron chairs, which were in turn made secure to the stone. Later the same type was made of wrought iron by John Birkinshaw in England, who rolled it up to fifteen or eighteen feet in length.

The Evolution of the Rail.

From 1820 to 1850 the flat strap rail, spiked to longitudinal timbers, in turn supported by cross-ties, was largely used in this country, as it was the only shape that could be rolled here.

The present "T" section was invented in 1830 by Colonel Stevens, chief engineer of the Camden and Amboy Railway, and until 1845, when it was first rolled in this country, had to be imported from England. The poor quality of the iron at this time required such a broad support in the design of the rail for the head that no satisfactory plate-fastening could be secured. Iron shoes, into which the rail ends fitted, were the means of connection.

The greatest improvement dates from 1855, when the first steel rails were rolled in England. Ten years later they were experimentally rolled here. In 1867, through the introduction of the Bessemer process, which made possible their manufacture at a greatly reduced cost, began a revolution in track construction.

While the decade from 1880 to 1890 witnessed the greatest rate of railroad building in this country, it also witnessed the substantial substitution of steel rails on our lines. The earlier rails weighed from fifty to seventy pounds per yard. The increasing weight of equipment brought out a heavier section, and fifteen years ago there was a large percentage of mileage on which

weights of ninety pounds and over—and even one hundred pounds—per yard, had been introduced. Under special conditions rails weighing as high as one hundred and forty pounds per yard are used.

Elimination of Grade-Crossings.

In the early days both the railroads and public ways used the natural surface of the ground, as a matter of economy. The public question then was how they were to get the railroads and not how they were to restrict them in the manner of their construction. The districts traversed were sparsely settled and trains were few and slow in their movement; the highways were little used. All of which made for freedom from accident where the two crossed.

With the increase in population and the development of the country came the need of increased transportation facilities. More frequent, faster and heavier trains were moving upon the railroads and a greater number of people came to use the highways. The inevitable number result followed and at length the great number of accidents occurring at the grade-crossings attracted public attention.

The Legislature of Massachusetts took the first action, in 1869, when it provided for the appointment of a railroad commission, to investigate and report upon safer and better methods of construction and operation. They very promptly took up the grade-crossing question.

Grade-Crossing Legislation.

The New York State Board of Railroad Commissioners was created in 1882 and its membership appointed by the Governor. Among the functions which they immediately assumed was the question of public safety in connection with crossings at grade of railroads and highways. The consideration which this received and the complaints of unsafe conditions, as well as the complications and adjudications involved, led to the passing of the Grade-Crossing Law, which went into effect July 1, 1897.

Not only by the New York State law, but by the Massachusetts law, the method of elimination, as well as the apportionment of expense, is specific. The initiative is open to both the railroad and to the community, and the rapid progress of eliminations in these two States may be taken as an indorsement of the wisdom of such legislation, pa-

ving the way, as it does, for more progress on the question of eliminations than it is believed would ordinarily take place where no specific rule existed for the undertaking.

While the exact conditions throughout the country are not definitely known, it is believed that progress is being made quite generally in this direction.

Notwithstanding the great improvements in road-bed, track, bridges, signals, equipment, and other respects, all securing increased service and safety in railroad operation, the human element is a vital factor which has to be taken into consideration. With a view of raising the standard of individual service a system of physical and educational examinations has been adopted.

The Selection of Employees.

Employees must pass examinations as to vision, color sense, and hearing, and their knowledge of the fundamental rules and regulations, as well as the fundamental knowledge of road, appliances, and equipment. These examinations are repeated from time to time as the class of service and further advancement of the employee may require. Many of the large railroads have established schools, with capable instructors, where employees may receive instruction upon the performance of their duties, as well as affording them an opportunity to fit themselves for promotion.

From a few miles of crude tramways the world has in a century built 500,000 miles of steam operated and 100,000 miles of electrically operated roads; instead of spragging the wheels, we rely on the automatic high-speed brake; the coupling of cars has become an imitation of the action of human hands instead of risking their destruction.

Each train finds the condition of road ahead and protects itself by the agency of electric circuits and semaphores, the sequence of whose operation discloses on behalf of safety any obstruction that may block the route.

Four-wheel barrows are replaced by steel cars, larger than the miner's cabin, and carrying more than his month's output.

Instead of traveling on a tramway stage-coach, the passenger finds available for his comfort a modern hotel on wheels, with every luxury known to-day, electrically lighted, steam-heated, weather-proof. The old strap-iron rails, which became detached and penetrated the car floor, frequently impinging passengers to the roof, have been

replaced by bars of steel weighing one hundred pounds to the yard, whose manufacture, installation, and maintenance is prescribed with every degree of refinement known to the chemist and engineer.

Decrease of Fatalities.

Progress of a pronounced character has occurred. That this progress has been accompanied by increased safety is demonstrated by common knowledge and confirmed by the records, both of the railroads and the public authorities. As an illustration, take the statistics of the Interstate Commerce Commission. The increased safety of railroad operation is indicated in part by the following figures, based on the number of passengers carried monthly by the railroads of the United States, which at present is estimated between eight and nine hundred millions.

For the decade following the beginning of the records, namely, 1888-1897, the fatalities were 1 in 45,300,000.

For the next decade, bringing it down to the present time, the fatalities were 1 in 54,900,000.

The gain in ratio being, for the nation at large, fully twenty per cent.

Looking at the conditions in the State of New York, where the density of travel is considerably in excess of that of the country as a whole, we find a report of the State engineer in the year 1862, showing the ratio of fatalities of 1 in 28,200,000.

The average for six years, 1902 to 1907, inclusive, shows 1 in 200,000,000.

An increase in relative safety of eight hundred per cent.

Danger from Trespassers.

One of the thoughts that occurs to me was suggested by a recent exhibit from the records of the loss of life, damage to railroad property, as well as injury to persons and property conveyed, due to the presence of unauthorized persons upon railroad property, whether wilfully or carelessly trespassing.

As an illustration of its seriousness, during last year over five thousand trespassers lost their lives on railroads, besides a large number injured. Numerous mishaps have been traced to acts of trespassers, which may be the secret of many unexplained casualties. The railroads are a highway for the migrations of tramps and unemployed persons, who commit petty depredations, jeopardize

the safety of trains and the lives of employees and passengers.

It seems of no avail that thousands of the worst class are arrested by railroad police forces and convictions secured, as the sentences in the majority of cases serve rather to aggravate than mitigate the evil. One line arrested over nine thousand trespassers during the past year, and secured convictions in seventy-five per cent of the cases; but in half of them sentence was suspended, which usually meant that the offender used the railroad to escape from the scene.

I do not wish to be understood to asperse the administration of justice, nor to insist that offenses of a serious character are always

committed by railroad trespassers, but the hazard involved is one that should not be permitted to exist, the railroad property destroyed or damaged bearing no relation to the risk of persons and property transported, and to the enormous loss of life involved.

Wherein lies the increased safety of the future may perhaps be the query in many minds. It must be the product not only of an enlightened public opinion and the conservative wisdom of public representatives, but progressive and careful management, coupled with a sense of discipline and responsibility and industry of railroad employees, who must jointly share the obligations of the problem.

CONCRETE TIES ON THE SANTA FE.

They Have Stood Three Years' Test Without Deterioration, and Cost the Company Only One Dollar Apiece.

IN an effort to make more progress in the mighty tie problem of the modern American railroad to-day, the Santa Fe has taken up the reenforced concrete-tie experiment, and has witnessed the first signs of success.

In June, 1907, the Santa Fe placed twenty reenforced concrete ties in the main track between Los Angeles, California, and Redondo Junction. In March, 1908, the inspector of track and roadway reported that the ties showed "no indication of deterioration or failure in any way," and in April, 1910, they were reported to be "in first-class condition in every respect." The track on this line is ballasted with gravel, and the traffic is heavy.

The McDonald tie is reenforced with horizontal steel rods bent up under the rail seats and tied together at intervals with vertical rods, which serve also as web reenforcement. The rail is secured to the tie by spiking into sections wrought iron pipe set in the concrete.

The inside diameter of the pipe used for this purpose is a little less than the greatest dimension of the spike; so that the spike may be cut through the metal enough to insure a firm connection.

The length of the section of pipe is made the same as the depth of the tie, and both ends are passed through tie-plates and expanded, so as to hold the plates solidly in the surface of the concrete. This construction allows the tie to be used with either face up. It is necessary to use a spike

with a head so formed that its under face will conform to the top of the rail base when the spike is partially rotated, for at each redriving the spike should be turned so that its edges will cut an unused portion of the pipe and furnish a new bond.

When the surface of the concrete crumbles under the tie-plate, or the end of the tube becomes too badly worn to hold the spike, the tie may be turned over in the track, thus providing a new surface and an unused portion of pipe to spike into.

The cost of the tie when made in small numbers is given by the inventor at about one dollar and thirty cents, and it is stated on the same authority that a railroad by using company forces in the making of the ties could reduce this price by at least twenty-five cents.

In addition to the installation on the Santa Fe, a slightly modified form of this tie has been installed on all the lines of the Los Angeles Railway Company, but no reports of its performance have been made.

The shortage of suitable timber for railroad ties and the constantly increased expense of the same has led many railroad companies to make experiments costing thousands of dollars for the purpose of improving the tie situation.

At present the Santa Fe is shipping millions of ties from Japan, to place under the rails in this Western country, costing the company millions of dollars.

**You can run lots of trains on a single track if they all run one way.—
Foibles of the Chief Dispatcher.**



THE LURE.

BY ROLAND ASHFORD PHILLIPS.

Even the Qualms of Conscience Could Not Keep
Him Away from the Great City He Loved.



HE evening was hot, sullen, and depressive. The sea, running black as ink, seemed to swell up a stone's throw from the low-hanging stars. I sat in the steamer-chair beneath the striped awning, and the monotonous throb of the engines came to my ears like the hum of countless insects.

At intervals a vivid shower of sparks, leaping from the twin stacks, rained down upon the white deck and motionless awning. It was my second day out of Honolulu, eastward bound, and I judged we were making good time toward our port, for a hold of pineapples is a risky cargo under a tropical sun.

Shortly after supper, when I had made myself comfortable on deck, the stranger whom I had twice met in the general cabin came slowly down the deck, his white duck making him a conspicuous figure in the half gloom.

He spoke to me amiably, and lowered himself to a chair beside me under the awning. He was hatless. His head was nearly bald, and he was very thin and gaunt—emaciated, I might say, as if he had recently left a sick-

bed. I immediately conjured up fever, it being the most plausible excuse in the tropics. His face, lean and hollow-cheeked, although not ill cast, was covered with a light beard, and by the manner in which he toyed with it, I imagined it to be of recent growth. He must have been all of six feet tall.

"I'm lonesome to-night," he confessed. "Will I disturb you here?"

I had no objections. In truth, I was glad he came. So we sat and talked and smoked for quite an interval, until abruptly, and for no stated reason, we spoke of the city toward which we journeyed.

"My home," he said quickly; and there was a ring of pride in his declaration. "My home! I love it! I've watched it grow for thirty years. You Easterners can't realize how we love our city. It's a mother-love," he added softly.

"I've often heard of State loyalty," I observed lamely.

He pulled on his cigarette, the glow bringing his bearded face into momentary relief.

"That city is almost the only mother I have known," he went on. "I was born there. I've watched it broaden out, mile by mile. I

gloried in every building that was erected, every stone that was put in place. Ah!" he breathed reverently, "I'm glad I'm going back."

"Then, you've been away long?"

"Long? I haven't seen the city for three years. Think of that! Three awful years in Honolulu! I've been the same as dead."

The captain spoke for the first time. He had come up from his cabin, and had taken the last chair near the railing.

"I can sympathize with you," he said. "I once had to stay there a whole year. It was like taking a baby away from its mother. Why, when I came back I walked up Main Street crying for happiness. I'd work in the streets like a dog before I'd stay away that long again."

"On the contrary," I observed, after a moment's hesitation. "I never enjoyed myself so well as in the islands. If it wasn't for business, I'd never return. In the past few years I have been something of a traveler, but for some reason or other I overlooked that bit of Pacific paradise until this season. Maybe it was a good thing I did, for I wouldn't have cared to go anywhere else."

"You've never lived in our city," the stranger put in quietly, as if nothing more need be said.

I shrugged my shoulders and bowed beneath his argument.

We smoked in silence for a space, after the captain had accepted one of my cigarettes; and the throbbing of the engines, sounding like the beating of some great heart, seemed to lull one into forgetfulness.

"I've often got to thinking about the poor devils down there on the islands—the fellows who love the city like we do—who can't go back," the captain broke in. "It must be pretty much like Hades, if there is one on earth. I've often got to thinking about it."

The canvas chair on the other side of me, in which the stranger sat, creaked as if he had suddenly twisted about in it. I looked over at the captain, for his remark puzzled me.

"Why can't they go back?" I asked.

"They're afraid!" It was the stranger who spoke and answered me. He was leaning forward in his chair, but the shadow fell in such a way that I could not easily see his face.

Then the light broke in upon me. "I had forgotten. Of course, I understand what you mean now. I suppose there are any number of crooks, blackmailers, ex-bank presidents, and such, floating about the islands, eh? Wonder I hadn't thought of it before."

"I've talked with a good many of them," the captain put in, "and if their sufferings were only known, only understood, I'm sure the law would be satisfied. I'm speaking of their mental sufferings, of course. There's no more horrible punishment than that of the mind, to my way of thinking. Conscience kills where laws only wound. Many a poor man has got free of the law, only to suffer along for a few years, and finally give up. For my part, I'd stay at home and take the punishment."

The captain's simple logic appealed to me vividly. I had never looked upon the subject in that light before. The thought of a man fleeing the law, only to battle with himself, set my jaded interest at fever-heat.

"And these men," I spoke up eagerly, "are they never found out? Do they go under another name?" I wanted to bring out all I could, now that my curiosity was aroused.

"There was old man Hiltz," the captain began, ignoring my direct questions, but not the theme. "He skipped out between meals with a half million on him. Only last month I met an American outside of Honolulu—an overseer on one of the big sugar plantations—who was a dead ringer for him. He had grown a beard, and his hair was gray. He got me aside and made me talk about home to him all day long. It was Hiltz, all right, and he's suffering more right now than he would behind the bars. He'll either kill himself or get reckless and come back."

A sudden recollection swept over me after he had finished. I straightened in my chair.

"The day before I sailed," I put in, "I saw a man watching me in a little café near the park. When I looked at him, I knew I had seen him somewhere before. All the time I was eating I was thinking like mad. Then it came to me. I got up and walked over to his table. 'You're Singleton, aren't you?' I asked, holding out my hand. He stared at me emptily, although his cheeks went very white. 'You're mistaken in the party,' he came back quickly. 'My name's Livingstone!'"

"And you think it was Singleton?" It was the stranger who asked.

"I was somewhat doubtful then, of course, after his denial, but I'm positive of it now. He was tanned and smooth-faced, but he couldn't hide his eyes. He was once the mayor of our city. Got into some graft deal or other, and skipped."

The captain laughed shortly. "You run across them all over. The woods are full of

them. That makes me think of another fellow—John Warwick. Wonder I never came across him. Maybe I did, though, and didn't recognize him. He's on the islands."

"And what was his offense?" The stranger seemed interested. "Insurance deals?"

"No." The captain shook his head slowly, and appeared to be groping in the past for the memory. "No; he was a pilot. Used to bring in the ships from the outer harbor. One Sunday he brought in an excursion-

you or me had a little kid on that boat—or a wife—I'm thinking we'd forget and—"

I interrupted. "But you said it was foggy. It might not have been neglect. We ought to give him consideration, don't you think?"

The captain's big hand slapped to his knee.

"Warwick was drunk—dead drunk!" he exclaimed.

I drew my feet down from the coil of rope. A puff of wind came from somewhere, bulging the awning above us. I stared medita-



"WARWICK WAS DRUNK—DEAD DRUNK!"

boat and ran it on some rocks. It was a little bit foggy, but that shouldn't have made much difference to an old hand like Warwick. Anyhow, the boat went down, and half a hundred were drowned. Warwick dropped out of sight, and everybody thought he was drowned, too. Then one day a mate of mine said he had talked with him in Honolulu. Every time I'm in the town I keep my eye peeled for him."

"And what's the feeling against him at home?" the stranger questioned.

"Well, as a general thing, we don't jump at conclusions. But it was a pretty hard blow for some of the people. It was about as big a crime as a man can commit, I'm thinking. And I suppose if he was to step ashore to-day there'd be something like a lynching. The law's good enough in its way, but if

tively across the white space, where a lamp glowed amidship. Far up, toward the cabin, a door opened and shut, and a bar of light shot obliquely over the deck. In another moment the wireless operator came down and addressed the captain.

"Just picked up a message from the Gladola, two days out from home. She'll be in our radius for the next hour or so. You said you wanted to speak to her."

"Quite right." The captain lifted himself erect. "You'll excuse me, gentlemen?"

They walked away, the coatless, white-shirted operator in the lead. I watched them subconsciously, until the door opened and slammed. Then the stranger moved in his chair, and spoke.

"What do you think of this Warwick?" he asked.

"I believe if he loved the city as you fellows seem to, he'd risk coming back."

I received no answer. Then curiously I resumed:

"And what do you suppose would be his greatest concern, once he left the island? Capture?"

"I don't think so." The stranger spoke so queerly that I turned about in my chair. "He would be fearful that he would not see the city, after all."

"Not see it?" I echoed.

"Yes." The man got to his feet, and tossed away the remaining part of his cigarette. I waited expectantly for him to go on, but he did not. He stood for the interval, gazing far out over the black water, and then, without another word, turned and walked up the deck.

The following day passed monotonously, and it was at supper that I first caught sight of the stranger. He appeared very nervous, and did not seem at all anxious to talk.

"You'll see home in the morning," I said hopefully, as we were passing out. Then he looked at me, and for the first time I noticed how vague and dead his eyes were.

"I—hope so," he struggled.

We found our chairs again, but somehow I felt no inclination to smoke. The air was strangely oppressive, and seemed to fairly choke one. The evening sky, too, took on an unusual pallor, I thought, and the long, uneven waves that rocked away toward the horizon were very high, very oily, and black.

"What time—are we due to-morrow?" the stranger's voice broke into the hush.

"Early. Some time about nine o'clock, I should judge." And then, after a pause: "I suppose the city will be changed—since you last saw it."

I was surprised to find his fingers on my arm.

"I hope not," he faltered. "I—hope not. I want to see it—just like when I went away. I don't want to see a single thing changed." His fingers tightened. "Heavens!" he breathed heavily. "To see the old city again; to walk the streets, in the crowds; to hear all the old familiar voices, and to see the old familiar buildings—the buildings I have watched rise up from the vacant wastes; to feel the breeze from off the bay; to watch the ferries—"

His voice trailed into a whisper, and I could hear him breathe like a man who has run a long distance.

Dumbly I realized how he must have felt and how inadequate his words were to ex-

press it. And later, when I sought my stateroom, I pondered deeply over the man's infatuation for his mother city, wondering what peculiar mysterious power it possessed to so enslave its children.

I was a long time in getting to sleep, for my room was like an oven. Above me, on the shelf, droned an electric fan, but the air it stirred was stale and lifeless. However, after a time, I must have dozed off, for abruptly my eyes snapped open, and I found the daylight streaming in through the window.

I dressed, and went out on deck. With the possible exception of the watch, no one was about. I paced up and down for a time, and then, rooting my very feet to the deck, I saw the ship's operator leap grotesquely out from the cabin and lurch toward me.

His face was pasty, and his eyes, staring from their sockets, were as hard and fixed as glass. He was clad only in his pajamas.

"For love of Heaven!" he choked, as he neared me. "I just picked up the first coast wireless. The city—" He fumbled desperately at his throat. And while he stood there gasping I saw the figure of the stranger climbing the short stairs toward us.

"Go on! Go on!" I urged.

"The city—was destroyed—by earthquake—this morning!" the operator stammered. "She's in flames—burning—burning—absolutely no hope left! Everything's gone!"

With horror-stricken eyes, I saw the stranger grope blindly for the hand-rail, choke out something like a scream, and then crumple limply to the deck.

Stunned, yet retaining possession of my senses, I managed to call one of the watch, and together we bore the unconscious man back to his stateroom. With a queer lump in my throat, I saw that his berth had not been slept in.

After I had hurriedly bathed his head in some cold water and unloosened his clothes, he finally came back to the world again. He mumbled incoherently to himself, and his glassy eyes stared emptily at the ceiling.

"All—gone!" he whispered. "All gone! I knew—knew I was—never to see her again. My poor—poor—home!"

"Brace up," I encouraged, after his voice died away. "Don't take on like this. Be a man!"

He sat up rigidly, as if my words had been a needle in his flesh, and instinctively I recoiled.

"I will be a man," he returned huskily—"I will be a man. You'll help me, won't you? I've been a miserable coward all these

years. I've sinned—sinned! I've sinned against my own city—my home!" His eyes suddenly became radiant. "But I'm going to repay! I'm going to repay!"

"You're ill—out of your head," I faltered. "Lie still and rest."

"My Heaven!" he cried, throwing wide his arms. "Are you so blind? Don't you understand? I'm Warwick—Warwick!"

Where we entered the harbor I did not know. The pilot's confession, abrupt as it had come, together with the catastrophe into which we were heading, robbed me of all immediate reason. I leaned against the rail of the ship, and watched the vast cloud of smoke growing larger and more terrifying, spreading from horizon to horizon like a black pall. The captain rushed back and forth, shouting incoherent orders, which the white-faced, silent crew obeyed mechanically.

While we were creeping in toward the dim shore—for the captain had announced his intention of landing at the first convenient dock inside the harbor—and I had huddled against the side of the pilot-house in order to keep free from the suffocating smoke, I felt a hand on my arm, and, peering around, found Warwick beside me.

"They're dying—dying," he mumbled over and over like an automaton, and pointing with his outstretched arm. "They're dying—burning—all my people—all my city!"

When the smoke lifted a trifle, and the ship pushed her nose into a deserted dock, Warwick gave a cry and leaped from my side. I called to him frantically, but he kept on, unheeding. What sudden impulse guided me I could not tell, but without a second thought I followed him. He did not wait for the plank to be lowered, but, climbing the rail like a cat, leaped upon the roof of the dock-shed, and dropped nimbly to the ground. Like a man possessed, I followed him.

Now that we were upon solid ground, I caught up with him.

"Where are you going?" I shouted, for



DESTITUTE OF ALL THOUGHT OTHER THAN TO SAVE.

the noise about us was deafening. "What are you going to do?"

"Let me go," he screamed. "They're dying—burning! Don't you hear them calling—calling for me to help them? Do you want me to be a coward—again?"

So we raced on, side by side. An exulting madness burned in my veins. I remembered nothing, thought of nothing, cared for nothing, save that countless humans were in danger about us, and that we were going to help them. Explosions followed one upon another, rocking the very ground beneath us.

We left the docks behind, and hurried up the steep hill toward the burning, smoke-obscured area above. Many people passed us now, all running in the opposite direction, their arms filled, yet all strangely silent and like so many frightened spirits.

A woman carrying a baby tripped and fell heavily, and Warwick, his face working queerly, bent over and lifted her to her feet again. After she had gone he came close to me and spoke.

"The baby—was dead," he panted, and I saw that the tears were running down his cheeks. "I saw its poor little face. It was dead, and she didn't know it."

Walls were falling about us, and the smoke became so dense that we could scarcely distinguish the road. Weird flames licked here and there, their breath stabbing our lungs. I blindly followed Warwick from one house into another. My hat was lost. I threw aside my coat. My arms grew numb with pain, and my fingers were bleeding; and yet, mad men that we were, we realized nothing.

In the midst of this chaos a little girl, wildly clutching a doll, her clothes all but torn from her poor, thin body, ran out into the road. I lifted her into my arms.

"Mama—my mama!" she began to sob hysterically. "My mama won't wake up!"

I ran across the yard, and climbed through a broken window of the house.

"My mama—was in bed," the child went on, her thin voice barely audible. "She won't wake up!"

I groped my way through the rooms until I found the chamber. Half-way toward the bed a violent nausea gripped me. The whole side of the wall had fallen in, and only the end of the bed showed beneath the débris.

I staggered out, holding tight to the child, unmindful of her screams. Within a short distance I came upon Warwick; he seemed to be here, there, everywhere, shouting and talking wildly with himself.

Fascinated, I watched him. He dashed into this gaping doorway and that, appearing after a certain length of time with a limp burden in his arms. He appeared to be destitute of all thought other than to save, save, save.

Standing there, amid the flame and smoke

and crumbling walls, I could but dimly wonder whether this one hour did not more than balance his sinning. Surely the scales of mercy are just!

Then the child on my shoulder began to whimper, interrupting my thoughts, and, clapping a brutal hand across her mouth, I hurried on.

A stone building broke out of the pall ahead of us, and I saw Warwick standing irresolutely before it. Parts of the wall were crumbling, and the flames were leaping out from the windows.

"Don't go in there!" I shouted to him. "It'll fall—fall—in a minute! Stand away!"

But he only laughed—gaunt, burned, and horrible as he was—and stumbled unheedingly toward the sagging door. His beard had gone—his clothes were in threads, and smoking. His eyes were bloodshot, hard as glass, and bereft of all understanding.

"There's—some one—in there," his voice rang back to me. "I heard them calling!" And, before I could move or speak, he had gone.

I saw the flames leap higher and higher, roaring like a wind among the trees, and then the walls swayed in like a curtain in the breeze.

The sudden collapse stunned me. I reeled over as though some mighty hand had crushed upon my chest.

The child's sobbing cleared my brain for the moment. The poor little blistered face, wet with tears, buried itself against my shoulder.

I struggled to my feet, lifted her once more into my aching arms, held her tight against my heart, and, turning, followed the army of white-faced, silent stragglers that moved out toward the open, green hills above us. Up there the sun was shining.

SAFE-GUARDING OPEN COAL-CARS.

WHITELASHING coal would seem to be rather a silly proposition; but it is not done for looks, nor to change the quality of the material. It is rather a detective scheme which is simple and is said to be effective. The purpose is to locate loss of coal from open cars in transit.

The top of the load is sprayed with lime and water—an easy and cheap process. It is thus whitened as the water evaporates, and the appearance is that of a load of white coal. Any disturbance of this surface by removing of even a small quantity, is readily noticeable. By observing this at division and junction points, the place of the disappearance can be approximately located.

This plan has been tried on some Western roads and has, we understand, been abandoned solely on account of the opposition of dealers who claim that their customers do not want coal so treated. As the quality of the coal is unaffected, there can be no reasonable objection to it.

The real reason is believed to be that dealers prefer not to get the protected coal, but prefer the opportunity of making claims for alleged losses in transit. If this is the fact, there is a loop-hole here which railway commissions, State or National, might well look into. It is to the best interest of shippers and carriers that there should be no losses in transit and no bogus claims for alleged losses.



Told in the Smoker.

BY OLIN CRAWFORD.

A Bunch of New Ones by the Knights of the Grip, Who Keep the Smoking-Compartment in a Good Humor and Help to Shorten the Long Hours Spent in Gliding Over the Rails.

NEVER since that experience on the Big Four, I've always felt nervous about being the only one up, in a carful of sleeping passengers," said Frank Wade, who travels for a Boston shoe factory. "And I guess Sam Rosenthal feels the same way. He ought to. He's got more cause than I have. If I was Sam I wouldn't feel safe in a sleeper-berth till I'd roped myself down.

"Sam and I were in the same line at the time, both running out from Boston selling to the wholesale trade. We ran across each other in St. Louis, both on our way to catch the night train for Cleveland. He managed to get a lower berth, while I drew an upper one several numbers away.

"We turned in early, for we had both had a hard day, and I slept like a log until the small hours of the morning, when a terrible rumpus in the car woke me up.

"A prim old lady across the way from me was screaming that she'd been robbed of all her money and a gold watch, and the Pullman conductor and the train conductor were trying to pacify her. About the same time, another woman in the other end of the car discovered that she had also been robbed.

She had lost her money and a pearl pin, and you would have thought she was going to lose her life, too, from the row she kicked up. It certainly looked as if there would be a hot time for the car-porter at the end of the run when the railroad officials took him in hand.

"It was close to an hour before things quieted down. Then I went to sleep again, but somewhere near daylight I woke up with a jump. A woman was screaming 'Thief!'

"In a second my head was out through the curtains just in time to see a fat man jump out of an upper berth and land with a whoop on the shoulders of another man in the aisle. The man he landed on crumpled up in a heap under him, and in no time half a dozen other passengers were helping the fat man pin him down.

"It looked like a football scrimmage, with fellows in pajamas and nightshirts all tangled up, and it sounded like a lunatic asylum broke loose. Every woman in the car was screaming like a maniac, some of 'em crying 'Thieves!' and others 'Murder!' while the man at the bottom of the writhing pile was yelling for the police.

"The prim old lady who had caused the first row was out in the aisle protesting that

the thief had come back and had tried to get into her berth. And when the fat man had untangled himself from the scrimmage he backed her up.

"His berth was directly over the old lady's, and when she screamed he jumped out in time to land on the man as he was fumbling at her curtains.

"While she was telling her story somebody yanked the captive up from the floor by the collar. And who do you suppose it was, who had been down at the bottom of that free-for-all?

"For a minute I thought I must be having a nightmare. It was Rosenthal! A five-thousand-dollar-a-year man who had been on the road for twenty years, caught robbing berths!

"He had a black eye, his clothes were ripped up the back, and blood was trickling down his forehead, but it was Sam all right. The most curious thing about it was that he was yelling 'Police!' It isn't natural for a man caught in the act to yell for the police.

"But there didn't happen to be any policemen aboard. It would be time enough to call them when we got into Cleveland.

"In the meantime, Sam didn't seem to realize what a serious scrape he'd got himself into. Instead, he was swearing vengeance and talking about suing the road and having the fat man arrested for assault.

"Sam," I said, "you had better keep quiet, and when we get to Cleveland, I'll look up a good lawyer for you."

"But that only made him madder.

"Keep quiet!" he yelled. "Would you keep quiet if you'd had a whole car-load of passengers jump on you? It's lucky I'm alive!"

"But, look here, Sam," said I, "you're in a tight fix. You've got to face a charge of robbing that old lady."

"What!" he cried. "Why, I wasn't doing a thing. I'd only just crawled out of my berth when that three-hundred-pound brute up-stairs landed on me! And then the whole carful came and piled on. A lunatic asylum's being moved, I guess, and this is it. That's the only explanation I can think of."

"Of course, I had decided already that he was the crazy one; that he had had a sudden attack of insanity that had shown itself in kleptomania.

"Well, we flew along without a stop from the time of the riot till we rolled into Cleveland. In the Cleveland yards a couple of detectives got aboard. One of them nabbed Sam and the porter. The other happened to

take a peep into the wash-room on his way through, and he stepped in and laid hold of a little man who was sitting all alone in there smoking.

"He had recognized him as an old-time crook, who hadn't been out of prison three months. The stolen jewelry was found on his clothes.

"Even then the old lady wasn't satisfied when they let Sam go free. She wanted to know why he had been trying to get into her berth. That was what puzzled me, too.

"It wasn't until two months later that something happened in the Great Northern Hotel, Chicago, that solved the mystery. Rosenthal appeared in the lobby at midnight just as a lot of people from the theaters were coming in, clad only in his pajamas.

"He was walking in his sleep, and, as he finally admitted, that is just what he must have been doing in the sleeper when the old lady caught him."

THE BRAVERY OF SCHWARTZ.

THAT story reminded Frank Hoover, who is one of the army of clothing salesmen that goes out from the wholesale district of Broadway, of another night-alarm in a sleeping-car.

"M. Levy & Sons, in Bond Street, used to have a chap traveling for them," said Hoover, "who was one of the finest self-advertisers on the road. His name was Schwartz, and with his black beard, his diamonds, his lurid waistcoats, and swell clothes, he put up a wonderful front.

"You could find him almost any day when he was off the road in the lobby of the Broadway Central telling about the big things he'd done.

"A fine fellow, but an awful bluffer, he had a veritable passion for wanting to pose as a hero, and he was always telling some story of an adventure in which he had distinguished himself for bravery.

"One night, Schwartz and I got aboard the World's Fair flier in Chicago bound for the St. Louis Exposition.

"On the same train was Morris Katz, a big St. Louis clothier. Schwartz stuck to Katz like a long-lost brother from the moment he set eyes on him. He made up his mind he'd sell him a bill of goods before St. Louis was reached.

"It happened that Katz wasn't in a buying mood that night, but Schwartz kept at him, sounding him to find his weak points.

Finally he got him going on the subject of wild animals.

"Katz could talk all night about hunting big game. That is where Schwartz's vivid imagination proved valuable. He told Katz how he had risked his life in hunting mountain lions and of fights he had with Western desperadoes, till Katz's eyes fairly bulged. Schwartz pleased him so much that he got a six-thousand-dollar order, with a good chance of another after reaching St. Louis.

"That was the night the World's Fair flier was held up in Illinois by masked bandits. A regular, old-fashioned train-robbery that was, with the robbers going through the sleeping-cars holding up the passengers at the points of revolvers.

"It was wonderful the way everybody gave up. Of course, the bandits didn't have time to stop and search people, yet there were mighty few that didn't hand over everything they had. That's what I did. I gave up two hundred and a watch, and I went through every pocket to see that I hadn't forgotten anything. It makes a man extraordinarily scrupulous when he sees a revolver pointed at his head.

"When the bandit who attended to us got to the end of the car and was about to leave, he suddenly swung around to where Katz and Schwartz were sitting, hesitated an instant, then pointed his gun at the pair and said: 'Did I get yours?'

"'N-n-no, sir,' stammered Schwartz, digging into his pockets, 'you missed us.'

"Schwartz had only forty dollars and a watch and was glad to get off so easily, but poor Katz was heartbroken. He had to hand over a cool thousand in money, and jewelry worth half as much more. He gave Schwartz a look of withering scorn.

"'You jackass!' he hissed. 'I'll take that six-thousand-dollar order back, and I'm thinking of suing you besides.'"



BELOW THE EQUATOR.

IN that great and new field of commerce, South America, hundreds of salesmen from this country have been busy during the last three or four years beating out new paths of trade, and some of them have been having strange experiences to tell the home folks about.

In every gathering place of commercial travelers nowadays, there is sure to be somebody with a South American yarn. For example, there's that story told by Ralph

Kennedy, who was sent down there last year by a Brooklyn hat factory.

"It was in Buenos Aires," said Kennedy, "and a great place that is, too. Talk about your live towns! Chicago is as tame and peaceful as a cemetery after getting back from there. I suppose one reason is that there are so many runaway crooks from the 'States' down there. They set a pretty swift pace for the sportive element.

"One of the stores I visited was a prosperous looking place that sold about everything that could be imagined in the line of men's goods and carried a big stock of hats. I got a big surprise on discovering who the proprietor was. He had changed a good deal and had grown a beard, but I had known him too well not to recognize him.

"Perhaps you've heard of Taintor, who skipped out of New York with a big roll of his firm's money about ten years ago. Well, it was Taintor who was running that store.

"He was simply tickled to death to see me, too. He threw his arms around me as if I was a long-lost child. I was the only one of the crowd he used to chum with in New York that he had seen in all those ten years. Would he buy hats? Why, it looked as if he'd have to mortgage his store to pay for the order he gave me.

"He couldn't do enough for me, and I couldn't tell him enough about New York and the boys. All that night we sat up and talked about the old days. He told me he had made a lot of money down there, and was getting richer every year. But he would give every dollar, he said, to be able to get back to New York and see the old faces and the old places again.

"He spoke of his father and his mother and his wife, all of whom had disowned him after his fall, and he didn't even wince when he mentioned them, though he'd always been fond of his wife.

"He could speak of his old friends, too, without a show of any very deep feeling. It seemed to me that he must have become callous during his years as an outcast, for nothing seemed to move him.

"At last we fell to talking of some of our old meeting-places. The favorite one was Tom Noonan's café, in Bleecker Street. He had borne up like a man till then, but he had reached the limit. The thought of Noonan's was too much. He burst into tears.

"'I can't bear to think of it,' he cried. 'I've had the best times of my life there with the boys.'

"So we changed the conversation back to his wife and relatives and before long he got his nerve back."



BACK IN THE BARREL.

"LET me tell you one," said Ed Joyce, one of Chicago's best cereal sellers. "It was down in an Alabama town that I heard this. It seems that old Major Brown, one of the old Southern gentry, had been away from his home for ten years attending to a business in the North.

"One day, while walking about visiting familiar spots, he met Lawrence, an old colored servant, who was overjoyed to see Major Brown again.

"Lawrence," said the major, in the course of the talk, 'tell me, what has become of Colonel Trask?'

"De colonel am dead, sah."

"Dead! You don't tell me!" exclaimed Brown with some surprise. 'And he's buried in our old cemetery?'

"Yes, sah, he's done buried thar."

"And my old friend, John Peters?'

"Well, I'se sorry to say, sah," went on Lawrence, 'dat Massa Peters am dead, too!'

"John Peters dead!" The major was astonished. 'What on earth did he die of, Lawrence?'

Lawrence hesitated, but finally mustered up courage. 'Dey do say, sah, dat like Colonel Trask he died of drink.'

"Well—well," mused Major Brown. 'Mr. Peters is buried, too, in our old cemetery?'

"Yes, sah, he is sure buried thar."

"Lawrence," went on the major, 'tell me about my old friend, General Watson.'

"General Watson am dead, too," said Lawrence, somewhat tired of the mortuary recital.

"Watson, dead—dead!" the old major could scarcely control himself. 'My oldest friend. Pray, what did he die of, Lawrence?'

"Well, sah, dey do say, sah, dat he drank hisself to death, too!'

"The old major was struggling with his grief. 'And he, too, is buried in our old cemetery, Lawrence?'

"No, sah," answered Lawrence. 'Dey didn't 'xactly bury him, sah. Dey just poured him back in de barrel.'"

HE TOOK THE TICKETS.

A BUNCH of old-time traveling men were visiting the other evening at a Topeka hotel, and talk turned on to courageous conductors "I have known."

A story was told on John Becker, for years a conductor on the Santa Fe. He was practically awarded the palm for being the bravest "con" who ever set foot on a through Kansas train in the old and perilous days.

One day, just after the Santa Fe had left Dodge City, Becker passed through the car to take up the pasteboards. Two cowboys had boarded the train at Dodge, and Becker went up to them and said: "T-tickets, please."

For an answer the cowboys whipped out big revolvers—the Colts blue-steel brand, .44-caliber, and replied:

"Here they are."

"They're good," said Becker quickly, with a deprecatory wave of his hand, and he passed on through the car. The cowboys chucked their "irons" back into their holsters and settled back comfortably, thinking that the train was theirs.

Becker walked on back to his little wardrobe at the front end of the next car, and, unlocking it, took out a sawed-off double-barreled shotgun, loaded with slugs. He cocked both hammers—for it was before the hammerless automatic days—and, getting the gun properly placed in front of him,

he marched back into the car where the cowboys were.

He stepped briskly in front of them and shoved the big gun into their faces, holding it at such an angle that a shot would have swept off the heads of both.

Then he said again, gently: "Your tickets, please."

The hands of the cowboys twitched convulsively toward their pockets, and Becker interjected: "Give me those tickets, please, that have handles, and shove 'em at me with the handles toward me—toward me, understand," he added, bearing down hard with the emphasis on "me."

The tickets came across, with the handles in the requested direction.

"Now dig up the coin," he demanded, "to the next station where we stop."

They dug.

"Now, at the next station you fellows unload. Understand?" The sawed-off was still at a dangerous location, and the hammers still up.

The cowboys nodded vigorously in the affirmative, and they unloaded quickly and without words at the next stop.

Becker made no fuss over the matter; didn't talk about it at all. He just accepted it as a part of the day's business, and seemed to see nothing in it that was extraordinary.—*Kansas City Journal*.

THE COMBUSTIBLE LIMITED.

BY AUGUSTUS WITTFELD.

Experiences of the Hobo Quartette, Expressed by the
Aphorism, "Hard Work Ain't No Doughy Sinecure."



THE Battered Brothers of the Rich lounged in non-executive session on a side-tracked gondola-car at Lethargy Landing. Four in number, they had been thrown together by the cosmic swirl which governs the movements of the derelict. Volition to them was a negative factor.

"Say, fellows," remarked Phonograph Pete, "I'll bet that the man who invented work was a professional labor agitator."

"What you want to talk about work for?" growled Sleepy Sam. "You make me tired."

"Aw, shut up, Sleepy," advised Pugilistic Pat. "If you are tired, why don't you take a trip to slumberland? I'm sure if Pete wants to put in a record and furnish us entertainment, he's only following his natural bent. He can't help shooting off his face, and so long as he don't have to work his brain to do it he ain't breaking no by-laws."

"Which," said Sleepy Sam, "does Pete proud, in admitting that he's got such a thing as a brain?"

"I rise to a point of order," interrupted Loquacious Louie. "If Pete is prompted to put in a record merely for the sake of standing before his own megaphone and hearing himself vociferate, I protest, but if he can slip in something that possesses the quality of novel entertainment, I'm no protestant."

"What you got on your mind, Pete?" asked Pugilistic Patrick.

"A couple of years ago," began Pete, "I was doing some topographical research work up in Pennsylvania. Investigating the lay of the land with an eye to the future. Locating havens of rest where a fellow might secure three meals and liberty without the consequent ennui of ringing up on the time-clock.

"It was hard work locating the burghs that met the requirements, and I was forced to migrate continually. Most of my traveling was done in the approved and conventional way, but at times I was forced to hit the ties and indulge in pedestrianation."

"One day, after shaking the dust of a bum burgh from my clothes and the constable from my trail, I hit the railroad track a few miles out and waited for the arrival of my private car. There must have been a holiday on the line, for nothing came along, and I was finally forced to locomote by my own powers of locomotion."

"After walking about five miles, I discerned the sky-line of civilization in the distance. About a mile away, to one side of the track, were a number of low frame buildings, completely surrounded by a solid board fence."

"A little farther on, the village loomed into view. It was a fair-looking town, judging from my point of vantage, and I hoped to add it to my list of eligible localities."

"The sight of that likely looking burgh put ginger into my halting footsteps, and I soon arrived at the outskirts. There was a string of cars drawn up on a siding along the fence which surrounded the buildings."

"I was wondering what kind of plant it might be, when on passing a place where the string of cars was broken for about fifteen feet, I saw painted on the fence in huge white letters against a black background:

DANGEROUS! POWDER WORKS

"I quickly put out my pipe, which I was smoking, and stuck it in my pocket. I had no desire to start on an expedition in search of the milkmaids up on the milky way.

"Work, in the abstract, has never appealed to me, and how a man in the full possession of his faculties can associate with a job in a powder factory beats me.

"Just think, fellows, of working along for five days with your eye on the clock, calculating how many more hours it is before pay-day comes around, and then, when the timepiece has only one more lap to go, somebody does a fool thing and the whole outfit blows up, sending you to kingdom come with a full week's pay uncollected."

"I should think," remarked Loquacious Louie, "that a fellow would lose his nerve after being in one of those places when it blows up. I can't understand how a fellow can get his courage together again and resume work after the excitement is over."

"It isn't a question of getting your courage together. It's generally a question of picking out and identifying your own anatomical knickknacks," said Pete.

"Well, I knew from hearsay that a powder works is a sort of slumbering Vesuvius, so I proceeded to disassociate myself from the proximity. I hot-footed it past that open space in the string of cars. As I was passing the last car in the bunch, I happened to look at it, and I nearly jumped out of my socks when I saw a thin wreath of smoke coming from it.

"I did a hundred-yard dash down the track in record time, then stopped. I looked around to see if I could locate any one who was trying to qualify for the 'Nobel Courage Prize,' but the place was shy on candidates.

"Somebody's got to get that car out of there, I told myself, or there's a going to be something doing in the noise line. In my excitement, I called for help, but there was no answer. Then I realized that if anybody was going to do the heroic it was up to your Uncle Pete to get busy.

"I ran back to the car and tried to open the door, but found it locked. I thought that if I could find out what the car contained I could proceed more intelligently with the first-aid stunt, but it was a clean lockout, so I was forced to proceed along other lines.

"I slipped in between the cars and uncoupled the burning one from the next one. Then, looking around, I spied one of those pinch-bars that the train crews use for moving dead cars along the track. I got it and tried to move that car along, but it wouldn't budge.

"The smoke was pouring out in thick volumes by this time, and I realized that I

had to get it moving pretty soon or hustle myself out of the danger zone. I worked the bar until I had a crop of blisters on both hands, but the fiery freight was as immovable as a tenement-house rent collector.

"Suddenly, I made the startling discovery that the brakes were set. I ran around to the front end of the car, and climbing up I quickly loosened the brake. Then climbing down, I rushed back, and had that car going in no time.

"After moving it along a few feet, the car started to run of its own accord, and I realized that there was a slight grade at that point, sufficient to allow it to travel by gravity.

"I ran ahead and swung aboard. As I climbed to the top, the flames began to eat their way through the roof, at the rear end. I grasped the brake-wheel and spun it around so as to get control of the car should the grade get too stiff.

"Slowly, my fiery chariot gathered speed, and by the time we struck the village we were exceeding the speed limits. As we struck the crossing, the watchman rushed out of his shanty and made some unintelligible remarks to me, but I kept on going.

"I tried to put on the brakes so as to bring that luminous limited to a stop beyond the built-up section of the town, but I found that the chain had got jammed. Being diametrically opposed to hard work, I quit the job and let her slide. Back in the village, I could see the worthy inhabitants running around and gesticulating wildly.

"I looked ahead and saw that the track was clear for a good stretch, but I also saw that it was down grade, so that there was no possibility of stopping. On we rushed, the wind fanning the flames, but fortunately for me, sweeping them rearward.

"Suddenly, I heard a shrill whistle ahead, and I realized that an engine was on the same track as my car. It had stopped about a mile off, headed the other way.

"'Here's where we make a sensational finish,' I said to myself. Then I heaved a sigh of relief, as I saw the engine get into motion and start down the track. That fellow at the throttle certainly let her out some, but my pyrotechnical Pullman kept gaining on him steadily. I grew interested in the race, and wished that I was close enough to bet with the engineer on the outcome.

"Talk about the mountain of fame being down hill on the other side! That grade had the mountain of fame looking level. Slowly we gained on that engine ahead,

which was speeding like an automobile endeavoring to outdistance a pursuing, fine-collector.

"Ahead, in the distance, another town came into view, and I wondered whether there would be a reception committee to greet us.

"That engineer seemed to get an extra burst of speed out of his puffing engine as we neared the town, and just as he struck the outskirts he slacked up, and his fireman jumped. He ran back a short distance, and I saw him desperately trying to throw a switch. He got it over just in time, and my special left the main track.

"I thought we had been going some before, but this new line that they had switched me onto was in a class by itself. The fellows that laid that track must have worked on ladders. You've seen those gravity roads where they pull trains up with a steel cable, and let them run down by holding them back?

"Well, that's the kind of proposition I was up against. At the end of the track, about a mile down, I caught a glimpse of a river, which seemed to be rushing up to meet me, and before I had time to get the mental impression registered, that car-load of fire hit something, and I made a long-distance dive into the watery depths.

"I hit the water and went down about a mile. When I came up, and got the water out of my eyes, I struck out for the shore."

"Say, Pete," interrupted Loquacious Louie, "when and where did you learn to swim?"

"Oh," replied Pete, "I learned to swim before I cut my wisdom teeth. I was born on a canal boat. Well, as I was saying, I struck out for the shore like a bullfrog going a wooing. The car had struck a bumper on the river's edge, and the wreck was burning fiercely. By the time I pulled myself ashore, a crowd had collected to enjoy the fire.

"Say, sport," said a fellow who looked like a railroad-man, "where'd you come from?"

"Up by the powder-works, about five miles back," I answered.

"Powder-works," said the fellow. "What powder-works? There ain't no powder-works within twenty miles of this place."

"I guess I can read," I replied. "Especially when the letters happen to be about five feet high. If that place isn't a powder-works, they ought to take in their sign."

"The village constable pushed through the crowd, and asked the cause of the trouble. The railroad-looking fellow told him, and advised that he lock me up until they found

out how I came to be joy-riding around the country.

"The constable took me before the town burgess. When I told my story he seemed to be favorably impressed.

"There is one weak point in your story," he said. "You claim that this car was standing alongside the powder-works, but there are no powder-works within twenty miles of this place."

"But I can take you to them," I insisted.

"All right," he replied. "How far is it?"

"About a mile straight up, and five miles back along the line," I replied.

"Jake," he said, turning to the constable, "hitch up my team, and we'll drive up. I haven't anything particular on hand."

"Well, we drove up, and finally reached the point where I had started my trip on the combustible limited. The pike ran along the railroad tracks at that point, and as we came opposite the open space in the string of cars, I told Jake to pull up his prancing plugs.

"There!" I said triumphantly, pointing to the sign. "What does that mean?"

"The judge and Jake gave a look, and then burst into hilarious laughter.

"Gosh and hemlock!" laughed the judge, when he could control himself. "This sure is a joke on you. Come on, Jake. Let's take him over and show him, and then ship him back to Missouri."

"We all got out of the wagon and crossed the railroad tracks. They took me through the open space in the string of cars, and then the cause of their hilarity broke upon my astonished gaze.

"Painted along the whole length of the fence, in letters like the ones I'd read between the cars, was this:

**PEACHBLOW FACE POWDER
WORKS WONDERS.**

AVOID THE DANGEROUS KINDS.

"When I recovered my faculties, I put distance between myself and that beauty-bulletin. As I faded from the landscape, I heard an explosion in the rear, but it was only Jake and the judge laughing.

"Quite a difference between face-powder and the kind you was thinking of. Hey, Pete?" remarked Loquacious Louie.

"Oh, I don't know," replied Pete. "They are both used to wage warfare on mere man."

A HEART OF THE NORTH.

BY GEORGE VAN SCHAICK.

The Suffering and Hardships of a Long, Lone Journey Through the Canadian Wilderness.

SYNOPSIS OF PREVIOUS CHAPTERS.

PIERRE, a young French-Canadian with Indian blood in his veins, while hunting and trapping in the Canadian woods, rescues Anne Marie, a young Indian girl, and her old father, whose canoe has been upset and demolished by a moose. Father and daughter are badly injured. Pierre takes them to his tent, but the old Indian is so seriously hurt that he dies, and Pierre is left with the girl on his hands. A half-breed and an Indian appear at the camp. This half-breed, Simon, who was the husband of Anne Marie's sister, but who, through his brutality, has killed his wife, is in love with the girl, and tries to make Pierre give her up. This Pierre refuses to do, and the girl and he scheme to escape in the canoe. It seems impossible, and, finally, Anne Marie, whose injuries are very painful, endeavors to make Simon swear on the grave of her father that he will protect her and take her to the home of her cousin, Antoine. Simon promises, but refuses to swear. He insults Pierre, and a fight ensues, in which Pierre succeeds in felling the half-breed and, with the help of the girl, binds him. Anne Marie, after damaging Simon's canoe in such a way that it will take some hours to mend, helps Pierre and the Indian to pack their canoe, and she and Pierre start up the river, leaving the Indian to return and release Simon. Simon and the Indian follow as quickly as possible, but again Pierre conquers the half-breed, in a desperate hand-to-hand fight, and he and his companion are made to take a solemn oath to cease the chase. Anne Marie develops a high fever which promises to delay the two in camp for some time. An inventory of supplies shows Pierre that they have enough to last them for about four weeks. Their journey is beset with sickness, hardships, and lack of food.

CHAPTER IX.

Reaching the Portage.



HEY made camp in a little grove where generations of Indians and voyagers had left signs of their temporary occupancy.

"We haven't gone very far," said Pierre as they were eating their supper, "but you've done better than I supposed you could. Are you very tired, Anne Marie?"

"No, getting better fast. I'm hungry, too."

They laughed happily and enjoyed their meal to the utmost.

"We'll do still better to-morrow," he said.

She looked at the sky before answering.

"Much rain coming," she announced.

Pierre looked up too and shook his head.

"I suppose you know," he said doubtfully, "but I can't see any signs of it."

There was a moderate breeze from the

southeast, and it was rather less cold than for a few days back. A little rain, however, would make no difference.

But next morning it was coming down in torrents; it was a regular deluge. They waited for some time and Pierre decided that he might as well carry some of the things over. Anne Marie had arisen somewhat stiff and lame, and remained within the tent as he started off with the canoe. On his return, in less than half an hour, he was drenched to the skin.

"I wouldn't mind starting," he said, "but I'm afraid a soaking would not be very good for you. It might be a good idea to stay here to-day. This rain won't last forever, and you're getting stronger all the time. In a few days it will not matter whether you get wet or not."

She nodded impassively. What did it matter to her whether she went or not. She was happy, and did not want to see the ending of these days.

"As you wish," she said.

Began in the April Railroad Man's Magazine. Single copies, 10 cents."

"But it is not as I wish. I'd like to start," he put in rather impatiently. "It's just for your good. If you got thoroughly wet and chilled now you might be ill again."

"Of course, you know best about these things," she answered quietly.

It really seemed as if they had decided wisely, for all day it poured frightfully. Pierre took some more loads over the portage, during intervals when there was a lull in the storm, and stored them under the overturned canoe.

The river was rising fast.

"Big rains in the North," remarked the girl.

"Yes, it must have been coming down for several days up there, to be sure."

The next day, to Pierre's intense disappointment, conditions were just as bad, and he decided to wait longer. The girl was evidently improving fast; she seemed to be casting away her illness and to be emerging from it with renewed vigor.

But she was no longer idle now. Pierre had a little package containing needles, buttons, and various spools of thread, which his mother had put up for him, and Anne Marie appropriated it for the common good. With strong waxed thread she repaired her moccasins, and their clothing showed various rents that claimed her attention.

Pierre was now the idle one, lying down in the tent and smoking his pipe while she worked, and no longer feeling the irksome dullness he had experienced in the previous big rain; it seemed to him that he had found a pleasant companion. Besides, he was no longer a prisoner, kept in duress by the girl's illness.

He could have gone on if he had wished to; it made all the difference. In fact, he was permeated by a strange peaceful sensation, as of something homelike.

Here he sat, with his soft camp moccasins on his feet, and near him was a little house-keeper, radiating about her a certain charm of her own. He was thoroughly happy, and there was nothing incongruous in the thought that came to him, that they were there quietly enjoying life, and that if some things had been otherwise, he might have chosen that life and that woman for his own.

"My goodness," he suddenly exclaimed in English, "think of what the *mater* and the old man would say!"

Anne Marie looked up.

"I do not understand," she said.

"No, you don't understand, *Ou-memeou*. Probably you never will. I had thoughts

that came out loud, about things that are far away."

"Yes, I see," she answered, looking at him gravely, as though still seeking to fathom the unsolvable mystery of her chance companion.

In his voice there was a caress, to her, and in the mere touch of his finger something that made her heart beat, and her cheeks feel warmer. She slowly shook her head. It was not to be understood.

The day passed, and on the next it was still raining, but less hard, and they decided to start. *Anné Marie* got over the portage without any trouble. She was wrapped up in the water-proof ground cloth. This she had refused at first, caring nothing for the rain, but Pierre had insisted and she obeyed, as always.

They traveled all day, with only one small portage which was passed in a few minutes. The river was still rising and the current becoming a powerful turbid flood. Often, in rapid places, Pierre would have hesitated if the girl had not always known the proper course with unerring instinct. At times she arose, looked for a moment down the stream and at once pointed with her hand. The canoe, previously held back a little, would shoot forward, pitch a few times over waves caused by deeply sunken rocks, and glide into smoother water.

Another day came and the rain at length stopped, but the sky was clouded and a cold wind was bending the tree-tops. When Anne Marie came out of the tent she looked up in the north, with a serious expression.

"Maybe snow is coming soon," she said. "We must not stop any more."

"Oh, the snow won't hurt us," he replied, "and we'll be at Lac St. Jean in ten days."

"I will paddle," she declared. "I am much stronger now."

He assented with a nod, rather non-committal. The fact was that she looked quite well again. She stood erect as an arrow, lithe and graceful, and her breathing came quietly, easily, as if nothing had ever been the matter with her.

She was happy when she took a paddle and knelt in the bow. It seemed as if all the hard days had been left behind.

"I expect we'll never need all that meat," he asserted as they were gliding down a stretch of smooth water. "I wonder whether I might not leave some of it behind. It will be that much less to carry, and we'll get on so much faster."

"No, never leave food," she answered.

A little over thirty miles were covered that day, and on the following morning it was very cold. Near the bank there was a little film of ice over the water. They made an early start and Pierre was surprised to see how strongly the girl handled the paddle.

Every half hour or so he wanted to change sides, and to relieve the cramp in his toes and knees by shifting his position; she always complied, but never asked for a change first. With an easy sweep her arms moved to and fro, and whenever they changed their direction, or went down rapid places, it was a pleasure to see the skill with which she directed the canoe.

This manner of traveling was easy—there was a companionship in it, a community of effort that was very pleasant. At the next portage she quietly put a good load upon her strong young back, and smiled quietly when he remonstrated with her.

Late that afternoon they came to a rapid that could usually be easily shot in the canoe. Ordinarily high water permits of easier descent of bad places, but here the great rocks that were now just submerged made great dangerous whirlpools.

"*A terre!*" cried Anne Marie, giving a deft sweep toward the shore.

Having landed on the bank, they descended it on foot for a few yards, for a better look at the wild water. Anne Marie studied the situation and then shook her head.

"It is not safe," she said. "The current is too violent to enable us to keep clear of the rocks now."

"Oh, let's try it," he said, "we'll get through all right."

"The canoe is small and heavily loaded," she answered, "but we will if you want to."

She was deferring to him, loath as usual to pit her judgment against his, but he looked at her and smiled.

"You know best, child," he said. "Come on, we'll carry over."

It pleased him to think that this queer girl knew just what was best to do and yet was willing to abide by his desires. She was plucky to the very bones of her, and danger existed for her only as something that interfered with traveling, and which it would be bad woodcraft to run into.

"There is no regular portage here," she said.

Pierre took his ax and, followed by the girl, went down to survey the best way. He cut down a few alders and saplings that would have been troublesome, and then returned for the baggage.

They carried all the stuff down between them, leaving the canoe for the last. With the usual look around, to see that nothing had been forgotten, he took it up and went on, followed by the girl who was carrying the stove, and by Paddy, who was always at Anne Marie's heels.

The way lay through a bit of fir and spruce growth, emerging into an alder covered bit, and then leading along shore, over a hard rocky place where the footing was none too secure.

To the left the water was boiling, a very caldron of wild tearing waves splitting thunderously against the jagged rocks and then smoothing down into great tourniquets that deepened and filled up again at intervals.

It was a grand sight, and for a moment Pierre stood on a rock protruding from the bank. He then took a long step to reach another stone, but this moved under his weight and he made a violent effort to gain his footing farther on.

He reached it but with the toe of his boot and slipped, and in a moment the weight upon his shoulders had borne him with a crash into the wild water.

The girl shrieked as she saw him fall, and ran down as fast as she could. She saw him swept in the swirl of rough waters. The canoe had fallen away from him and he made an effort to grasp it, but it was whirled out of his reach.

He struck for the shore, but the crushing weight of the water bore him under several times. He came up gasping, but full of fight, and with a magnificent sweep of his strong arms neared the shore. A wave lifted him like a feather and beat him down upon a rock, and his body seemed to become suddenly limp.

A few yards farther down he was carried among the branches of a big fir that had fallen in the water, with its roots still fast to the bank.

Anne Marie leaped upon the trunk and grasped him by his coat-collar, pulling him up with a strength that was marvelous to behold. He helped himself a little, and finally the two made their way to the bank, where he sat under a tree, dazed, with blood flowing from a big cut upon his forehead.

"Nearly a fair knock-out," he muttered; and then, suddenly, the matter of greatest import came uppermost in his mind.

"Where's the canoe?" he cried, his voice torn with anxiety.

Farther down, out in the rapids, the little

craft had been jammed at the bow between two rocks, and the sweep of the current was forcing the stern around. They watched it with beating hearts, for it was like a living thing that fought for its life.

In the roaring of the waters they heard nothing, but could imagine that it cracked and moaned like a thing in pain. Gradually the stern twisted around, farther and farther, still resisting, and suddenly something gave way, and the canoe broke in the middle, and as a flash became a misshapen object, a mere carcass, a few ribs of which were sticking out of the water, which in a few minutes would complete its work of destruction.

Pierre had not felt the hurt he had received. He was not even aware that he was shivering with the cold and with the shock to his nerves. He merely sat there, looking at the sad wreck out in the boiling river, the significance of the accident gradually dawning upon him.

"How'll we get back now?" he asked despondently.

As he sat there the girl stood before him, mopping his bloody forehead with the red handkerchief she had taken from around her neck. She had remained silent, and even the wreck of the canoe had taken her attention for but a moment. She was looking at him, thankful that his life was saved, sorrowing that he was hurt, full of a deep concern for him. Suddenly tears came in her eyes.

"It is my fault," she said. "Perhaps we could have shot it from the other shore."

He looked at the wild water and shook his head. Then his eyes fell upon her and he saw her tears, and at once the sturdy strength of his forefathers came back to him.

"Never mind, *ma petite*," he said, "we might have been drowned."

He stopped to pat the dog's head. Paddy had his forefeet upon his knee, and was licking his hand.

"Come," said Anne Marie, "we must light a fire and get dry."

He followed her, casting another look at the bit of wreckage still jammed between two rocks, and they quickly made their way to where all their baggage lay piled up, ready for embarkation.

They had to open one of the bags to look for matches, for the few Pierre had in his pockets were soaked. His teeth were chattering with the cold, but he took the ax and chopped lustily. A great fire was soon burning, and its heat was grateful.

He stood before it, warming himself, while the girl sought out his few spare clothes.

While he put them on she boiled water for tea and busied herself making camp. She did it more rapidly than he could have managed it.

In her hands the little ax hastily fashioned tent-pegs, and before the kettle boiled their little silken home was erected.

It pleased her to wait upon him, and her attentions were grateful. He sat down by the fire, with one of the blankets wrapped around him. The wet clothes were hanging on poles just near enough to the fire to dry without burning. The scalding hot cup of tea she handed him comforted him greatly. His hat had disappeared in the river, and around his brow he wore the handkerchief with which Anne Marie had stanchd the bleeding.

She attempted to lift one of the heavy bags within the tent, and gave a little cry of pain. It awakened him out of the sort of apathy in which he had momentarily fallen.

"Don't move those bags, Anne Marie. You're not strong enough for that sort of thing yet."

"I want to help," she answered sadly.

"You've helped enough, *Ou-memeou*. You're a better fellow in the woods than most men I've traveled with. We'll get out of this mess somehow."

She was standing before him, and he smiled as he placed his hand on her shoulder.

Then Anne Marie became happy again, for she cared not where she might be, or what might happen, so long as this man was with her, so she could do his bidding and care for him, and so she could share his hardships.

When he had disappeared in the white water her heart had stopped beating, and she had felt that her very life was being torn away from her by the crushing waves that were carrying off this man, who was not like other men.

Blithely she went to work. The ordinary details of life must be attended to, and a meal had to be made ready.

"Don't bother," he said. "I can cook supper."

And then for the first time she rebelled.

"I am well now, and strong. It is the woman's work to cook and to work and to carry what she can. You have done all the work these many days, and now I want my share. I do not want to be despised."

"You're a wonder, *Ou-memeou*. Please yourself; but if you get sick again, don't blame me."

He was laughing then; and she laughed,

too, for she was happy to see him himself again.

"I'll have a great story to tell my friends," he declared, "after I get back to stones and brick."

She did not quite understand the latter part of his sentence; but the mention of his return to his friends seemed to hurt some little sensitive fiber within her heart, for she bit her lip and turned away quietly. Yes, he would get away from this land of hers, back to men and women of another world, and she would see him no more.

Yet it all seemed distant, like the death that comes to all, or the end of the world she had heard predicted. It saddened her, but gave no acute pain; it was one of the hard things of life, like the frost-bites of winter and the hunger of barren places, to be endured when they come, a part of existence.

For the rest of the day she turned her hands to every bit of work she could find to do. He wanted to get away, and she would help to the utmost; she owed him pretty nearly all the kindness and gentleness she had ever met with, and was anxious to repay.

At one time she was sewing rabbit-skins together, and Paddy came up to her. His master had wandered away in the woods to set snares.

She took the dog's rough head in her hands, and put his cold nose against her cheek.

"You will go with him, Paddy, and I will be all alone," she said.

But the dog only wagged his stumpy tail, and, hearing his master's footsteps, ran away to him.

As it began to grow dark, she spoke.

"There are people waiting for you where you live?" she inquired.

"Why, yes, my father and mother," he said, "and I'm afraid they'll be rather anxious before they see me again."

"No wife and little children?"

"Why, no—I'm not married," he laughed.

This seemed to cheer her up, for some reason that she did not fathom, since, strange to say, the idea had not at all materialized itself in her mind that this man could ever belong to her.

All that she knew was that she was happy in his presence, and that his going away would be a miserable ending to a life that, to her, was full of an ineffable charm.

They had both avoided the problem of the future, but it had to be solved. They could not remain where they were, and some means

of travel had to be devised. As they sat under the tent, with the little stove burning cheerfully, Pierre lit his pipe and began to ask questions.

"Can we build another canoe, Anne Marie? I suppose you know how?"

"Yes, I know; but there is no birch-bark large enough in this part of the country. And it should be the bark of spring-time."

"Then what are we to do?"

"If we had birch-bark it would take nearly two weeks," she replied. "We have no *couteau croche*, nothing but the ax and two knives. We must make a raft."

"A raft—just the thing! We will float down."

"Hard work," she continued. "We must make a new one at every portage."

"True," he answered. "We have enough to carry without pulling logs over all the carries."

"We can shoot no rapids," she continued, "and we must land before we get to the head of most portages."

"Yes, they're nearly all near swift water," he assented. "It's lucky I got that meat."

The young man was restless before he slept that night. He realized the difficulties of a rafting trip down the river, with the cold weather coming on, and the food question becoming important again. When he awoke in the morning, the girl was already out of the tent, cooking breakfast.

They had a bite to eat, hurriedly, and Pierre went to look for suitable trees, and picked out dead ones that would float light, but that were not decayed. There were plenty of them, and he cut lengths of about twenty-five feet, and carried them to the shore.

It took him a great deal longer to make his raft than he had expected. There was no auger to bore holes with in order to peg cross-pieces, and he puzzled for some time over the best way to fasten the logs solidly together.

He split a young birch and made six pieces about seven feet long, of which he passed three under his logs, at right angles with them, while three were placed over them. All that was necessary was to fasten the protruding ends strongly together. To do this he cut long strips from the caribou hide that had been kept.

The morning was well advanced before the clumsy craft, about six feet wide and twenty-five feet long, was completed. In the meanwhile Anne Marie had made a big paddle with his hunting knife, and had cut a couple of poles.

During all this time he had been working up to his knees in the water and felt the cold keenly. He then went to work to load his raft, feeling somewhat uncertain as to whether it would be buoyant enough, but found that all the equipment and provisions, besides their combined weight, did not sink it too deeply.

It bothered him to think that this job would have to be repeated at every portage and at many bits of rapid water that could easily have been shot in the canoe, but would prove too shallow or too rocky for the raft. With practise the others might be built more easily, but again he might not always find the right sort of trees at hand, or shallow water in which to work.

His activities once aroused, however, he easily became sanguine, and felt quite cheerful when they started. The food question bothered him only a little. Anne Marie could set snares for rabbits and catch fish while he worked at his rafts.

He knew he could not count on any more big game, excepting by the greatest luck. It would be scarcer as they traveled farther south. Well, it was one more experience, another fight to be waged, and he did not doubt for a moment that he would win.

The waterproof ground cloth had been stretched over the middle of the raft and the dunnage piled upon it. Paddy ran from one end to the other, enjoying a method of travel that gave him so much freedom.

They floated down easily, though slowly, and Anne Marie constantly watched and pointed out the places where the current was swiftest. It was of little use to try and propel the raft, for the greatest exertion of pole and paddle made apparently little difference in their speed.

Sometimes they had to observe the shore carefully to see that they were progressing at all, and then, with swifter water, the raft would go faster for a while, and Pierre could not help thinking how rapidly they would have traveled in the canoe.

"It's slow work, Anne Marie," he called to the girl, who was sitting forward.

"We travel," she answered. "We are not standing still. The hours carry us nearer to the end."

"Yes, I suppose we are going home," he assented.

"Look out for the sand-bar," she cried, pointing ahead.

The river was wide and the current slow at this place, and they were drifting over a shallow spot. They tried hard to push out

farther in the river, but soon grounded. Pierre jumped in the water, less than a foot deep, and the girl did likewise.

The lessened weight made but little difference, and inch by inch they managed to push on for thirty or forty yards, using their poles as levers under the raft. This took nearly an hour, and then they floated freely again for a short time, and became fast once more. The water was a little deeper, however, and by walking alongside and pushing they made progress, though very slowly. It took them until nearly sundown to get over about a mile of shoals and into deep water again.

"How far to the next portage?" asked Pierre.

"About three miles."

"Had we better go on?"

"Yes, it is an easy landing, with a sandy place."

They went on, while it grew darker and darker, and Anne Marie stood up ahead, watching.

"We must cross the river," she said, "the portage is on the other side."

With poles and paddle they forced the heavy raft over, and finally made the landing and unloaded it. While Anne Marie made camp, Pierre unfastened the knots and took the lashings and the cross-pieces, to use on the next raft.

Before eating, in the semidarkness, they carried some of the things over the carry in order to save time on the morrow.

"We've got to work hard on land now," he remarked, "and rest on the rafts when the blessed things consent to float."

CHAPTER X.

Turning the Tables.

BEFORE sunrise, they labored hard carrying things over the portage. Anne Marie was becoming visibly stronger day by day, and insisted on doing some of this work. But after they had taken everything as far as the lower landing-place, they decided that the water was too deep and rapid to permit the building of a raft there; they had to make their way down the bank for quite a distance, through an awful tangle of alders and brush, before reaching a suitable place.

Here it was quite a job to find the necessary logs, and the girl chopped down the trees, while Pierre carried them to the bank. This accomplished, the making of the raft did not take very long.

They had risen in the dark, at five, and by half-past nine they were able to load and get started, knowing that they would have several miles of clear water before reaching the next falls.

Pierre had rigged up a mast a little forward of amidship, and the ground cloth was fastened above to a crosstree, while the lower ends were tied to ropes. These were carried back and attached to the sides of the raft.

This did very well at the start, but after a couple of miles a change in the wind and bends in the river rendered it useless, and it had to be taken down. They had not been able to see that at any time it increased their speed very materially.

In this long stretch of the river the current was quite slow, notwithstanding the high water, and their progress was tedious. After a couple of hours the wind served them again, and they put up the sail once more, but it drove them hard over a shallow place, which it took them more than an hour to clear, and which they might have been able to avoid if the sail had not made the steering harder.

The day was a cloudy, gloomy one, and before they were clear of the shoals it began to rain. They were soon soaking wet. In pushing the raft some of the crosspieces began to get loose, and they had to be tied up again, Pierre working with his arms under water. At noon they landed and took some hot tea, starting off again in the cold downpour.

By sundown they managed to reach the end of their day's journey at the next portage. They were rather pleased, having made ten or twelve miles during the day. As soon as they were ashore, Pierre began to take loads over the short carry, making four trips in all.

Each time he was accompanied by Anne Marie, and they camped at the lower end; but when he stopped, Pierre was utterly exhausted. For some reason the tump-line seemed to strain his neck as it never had done before, and on each trip he had to put down his load several times, owing to the pain. He was compelled to sit down under the tent while Anne Marie made tea and cooked.

He fell asleep as soon as he had eaten, feeling quite played out, but awoke soon with an awful pain in his neck and back, and during the remainder of the night he slept no more. He was feverish and restless, and tossed about, though aware that every movement increased his agony.

Although trying hard not to disturb the girl, she awoke; and he was so ill that it was a comfort to hear her stirring, and to have her ask what the matter was.

"You have worked too hard," she said, "and now you have the pains that come from being wet all the time."

"Yes, I suppose it's some sort of rheumatism," he said. "But you can't help me, girl, and you had better try to go to sleep again."

But she would not hear of this, and went out in the darkness and the rain to get wood, and he heard her chopping. Then she came in with several armfuls of heavy sticks, and cut them again in the tent to get dry kindling. She soon made a fire in the stove, placing wet sticks on top of it in order to dry them a little.

His teeth had been chattering, and the fire was comforting. Anne Marie unfastened a few buttons of his shirt and rubbed his neck gently as she sat by him in the dark, with only occasional tiny bits of light that came from the half-opened door of the stove. It soothed the pain to some extent, but after a while it was as bad as ever, and he could hardly bear it.

"Why don't you take some of the medicine you gave me to make me sleep when I had the bad pain in my side?" she asked him.

He had not thought of that, and she managed to find the little case with the tiny vials. She lit their remaining candle for a few minutes, during which she handed him the little bottles one by one.

He selected the proper one, and took two of the tablets. It was very long, it seemed to him, before he could get asleep. Most of the time he was lying in a semiconscious state, aware of the pain, but not feeling it much. He remained quiet, however; and after several hours Anne Marie, who had been watching him in the dark, also fell asleep.

When he awoke the sun had been up at least an hour, but could not be seen, for it was still raining. Anne Marie was not in the tent. The pain was not quite as bad as it had been during the night, but when he tried to sit up he found it quite impossible.

All the muscles of his back seemed to be stiffened into sensitive masses. He called, but the girl did not answer; and suddenly the idea came into his mind that he had been forsaken, that she had gone and left him alone in his helplessness and misery. But he realized the absurdity of the thought.

All the provisions were there under the tent. He waited patiently, and even dozed

again for some minutes, being conscious of a disagreeable heavy feeling in his head and a sick sensation in his stomach, probably due to the opium.

He smiled at her when she finally came in, dripping, with her long black hair hanging in strings over her face. It seemed to him as if never in his life he had felt so glad to see any one. But when he tried to move one of his arms there was a terrible aching in his shoulder, and the hand dropped down.

"You are awake," she said. "Do you feel better?"

"It's my turn now, Anne Marie. I can't move. What awful luck."

"You will be all right again in a few days," she answered soothingly.

"A few days!" he cried out. "Won't I be able to travel to-morrow? Am I going to be tied up here by this deuced pain? I'm willing to keep still to-day, but to-morrow I go; do you hear?"

He was impatient and restless and spoke roughly, as if she had been at fault.

"You may still be too sore to go on to-morrow," she ventured.

"I don't care—I'll go to-morrow; but just now I simply can't move. Where have you been?"

"Fishing," she answered.

"Oh, you've been fishing, have you?" he retorted angrily. "I hope you've had some fun."

He was quite indignant. She was fishing while he suffered, while he needed her. She should have remained near him.

"We need provisions," she replied gently. "We have to save now."

From the hem of her rough skirt the water was dripping. Her face was glistening with the wet—she was quite soaked through.

"You poor girl!" he exclaimed contritely. "I'm sorry I said that."

Impulsively she knelt by him, and lifting one of his hands in her own, she stroked it, as if he had been a child.

"You are too good," she said. "It is my turn to work for you."

For some reason he could not explain, this made him feel uncomfortable; but her sympathy was good, and comforted him.

"Did you catch any fish?" he asked.

"Yes, three *dorée*," she answered.

He smiled, and the girl arose to get breakfast for him. She brought him some boiled fish and a cup of tea. He enjoyed the hot drink, and tried to eat a little, but he had no taste for food.

That day was desperately long and slow.

Anne Marie went out again several times to look at her lines and to set rabbit-snares, but she never remained away long; and whenever she returned he was pleased to see her and glad of her presence.

On the next day he was quite unable to move. The girl rubbed his neck and shoulders, and sat by him most of the time, sewing skins together or mending clothes. He liked to have her there, to talk to him and wait on him; and whenever she went away, even for a short time, he longed for her companionship. Several times he became grumpy and impatient, but she did not appear to notice it.

Five days in all passed away before he was able to move about, and then he determined to start at once. The weather had become clear and cold, and winter was announcing its near arrival. He took his ax, and went to work to make logs for the raft, but had to stop before he had half cut down a dead spruce whose top rested on some birches upon which it had fallen.

Anne Marie quietly took the ax from him, and he sat down, feeling piteously weak and disabled. After she had made the logs he arose again to help her take them down to the water's edge. He remembered how, the week before, he had swung them upon his shoulder and carried them so easily.

With the girl's help, she doing most of the work, he managed to get three of them to the shore and then sat down, exhausted. He persisted, however, but it took till evening to get the raft made. Anne Marie went up to her knees in the water to tie the crosspieces together. He had angrily forbidden her to do so, but she came to him and placed her hand on his shoulder, and smiled.

"You are the sick one now," she asserted gently. "I am well and strong, and more used to this life than you. Please let me work."

She had jumped in the water without waiting for his consent, and tied her knots more strongly and deftly than he had done. They fastened the raft solidly to the shore, ready for the next day's journey.

When they started, their load was increased by a few pounds of smoked fish and some rabbits. The next carry was not very far away, and when they landed Pierre found himself unable to carry heavy loads. The muscles of his head and neck resented the labor demanded of them. Twenty-five or thirty pounds was all that he could manage at a time. Anne Marie took his tump-line without heeding his protests, lifted full a hun-

dred pounds to her broad little back, and walked off with it.

"It is too much for you," he objected.

"I have had much rest," she replied. "I think sometimes you forget I am a savage. I have carried ever since I was a little girl. We take babies first, then food and traps, and, later on, babies again, but with heavier loads besides, and we paddle and skin and cook, and then we grow old and die."

She spoke simply, as one knowing that no other life was possible for her kind, and carried her load willingly, because that was one of the functions of the women of her race, and she was always surprised when Pierre tried to save her from too much toil.

What was there in life beyond this? As she walked on, bent under her load, she fancied that if this man had always been with her the labor would have been light and easy, its weariness nothing when shared with him, when rewarded by a word from him. This kind of idea, frequent with her now, was yet shapeless and unformed.

Principally she was like Paddy, conscious merely of present happiness; but, unlike him, she was made uneasy by the knowledge that it would not last, and a chilly feeling would strike through her heart, and the load upon her back then seemed to crush her in a strange way.

At the lower end of the carry a small stream entered the river, and they had to get across it to find trees for a new raft. It was quite deep and turbulent as a result of the recent rains, and they had to travel up its banks for some time before they found a place where they could get over it.

It took them over two hours to get all their things across and back again to the main shore. They had more trouble in making this raft than they had experienced before. Suitable trees were rather far apart, and the shore lent itself but poorly to the building of their craft.

They had to keep the logs together by sinking poles a couple of yards out into the river-bed, as the current threatened to carry them away. It was a hard job to tie on the crosspieces. After this was done the baggage had to be taken down a slippery bank, where their feet sank deeply in greasy blue clay.

For a mile after they started they went at a good pace, and then they reached a place where there were several islands, and entered a tortuous channel between two of them.

After going a hundred yards, they found the passage barred by a huge tree that had

fallen across it. As soon as they saw it they dug their poles in the bottom of the river, to stop their headway.

The tree was too large to make it practical to cut it in the middle, and they had to go back against the current to find another way. The water was rather deep, and, though not very swift, it took them a long time and much strenuous labor to push their clumsy ship up-stream until they reached another passage.

When they stopped, they were both quite exhausted, and glad, indeed, to sit on the raft again and direct its course with poles and paddles down the unending river, every fall and rapid of which had become an enemy to their progress, instead of a thing of beauty.

That night, when they stopped, they had only managed to make about seven miles. It was rather discouraging.

"At this rate it will take us till Christmas," said Pierre rather gloomily.

"We will have ice and heavy snow long before that," replied Anne Marie. "But we will have better days than this. To-morrow we reach the forks, and then there are hardly any carries, all the way to Tschotagama, only shallow places at times, and some swift waters."

CHAPTER XI.

The Toil of Travel.

IN the next ten days they made nearly two hundred miles. The weather had become stormy, and during all that time they lived night and day in wet clothes. Several light flurries of snow had betokened the need for haste. Everything was saturated, excepting the contents of the waterproof bags.

They had to build several rafts, while at other times they could unfasten the logs and float them over shoals and tie them together again lower down. They passed long expanses of barren land, abandoned by beasts and birds, and this dreariness corroded Pierre's soul. But the girl, though usually grave and taciturn, always stood by him, doing her work with such courage that he could not help admiring her.

He felt that she had become a splendid pal, and, prompted by an affectionate nature, the young man's conduct toward her daily became more friendly.

He always called her *Ou-memeou*, or translated the word in French and addressed her as *Tourterelle*. Often, while standing up on the raft, and discussing the all-important

matter of where the deepest water was ahead, his hand would rest upon her shoulder for a minute, as she pointed to some spot on the river.

Slowly, unconsciously, he began to feel that he would be sorry to end the trip. As a journey it certainly was beastly hard; but there was a keen enjoyment in the presence of that girl, and in the fact that he realized he was becoming, under some subtle influence, a stronger and better man.

If she had only been of his race he would have taken her to his heart, with all her poverty and ignorance of his world, of that world to which he still was tied, and that bound him with conventions too strong to be severed. He sometimes spoke of his life in the cities, and Ou-memeou seemed always eager to hear about it.

"I should like to see such places," she said once, "but it must be very dreadful to be always away from laughing waters and from the song that comes out of the woodland."

"You would die, *Tourterelle*," he answered, "if you were caged in a city. It is not for a little wild bird like you."

"But you, you love the forest, why do you stay in those towns?"

"Why, Ou-memeou? I cannot tell why, except that my people live there."

And he pondered long over this in silence, as they floated on the river, and the question kept on recurring, and at times he felt that he knew not really why. Whether the blood of Farquhar's wife beckoned to him, or real love was preparing him, or the glory of the wilderness appealed to him, he could not tell. He knew that the girl's query was daily becoming harder to answer, and gradually he felt that one bond was becoming looser, and that another was tightening around him.

Just as the flood carried them down, so he seemed to be upon a current that led away from his old life, not toward wealth or ease, but toward something else—greater, stronger, better suited to the thews and sinews of a real man.

Although they had long sleeps and a sufficiency of food, they became haggard and worn with the weary grind of it all. Anne Marie now did her full share of all the work, and it seemed to tire her less than her companion.

At any rate, she did not seem as exhausted when night came. Pierre became used to the idea of her working so hard, and was glad to have her attend to the dreary labor of cooking and cleaning the few dishes they had.

The flour-bag was very low now, and they

cooked no more bread. Sodden pancakes, made in the frying-pan, were more filling and easier to prepare. They hardly caught any fish, and the rabbits seemed few and far between, though they set snares nearly every night.

Paddy was dispirited. He had grown thin and lanky, although he had always received his full share of food. Never did he seem now to bark for the very joy of living, as formerly. His rather discriminating appetite had given way to a wolfish hunger for anything that could possibly be eaten.

The two sometimes remained nearly the whole day without speaking. The hardship of it all had deprived the man of none of his pluck; but his endurance was sapped to some extent, and he went ahead doggedly.

Along some portions of the river they had to make paths for themselves, where they dared not trust a raft in the rapids that would so easily have borne a canoe, knowing that the striking of a single boulder would mean the loss of all the provisions, and possibly their own death. On such occasions Anne Marie always went first.

She had an instinct that always enabled her to select the easiest going. But the best was seldom even fair. There were stretches of swamp in which they sank to their knees, and tangles of trees harvested by the great north winds, and burnt lands so covered with an abomination of low growth and charred fallen trunks that it took them hours at times to make a few hundred yards.

These dreadful journeys had to be repeated until their whole equipment was transported. Little by little they had discarded everything that was not absolutely necessary.

"There's no use in lugging these steel traps, Anne Marie," he had said. "I know they're about all you own in the world, but, after all, they're not worth much. I'll get you others when we get to Lac St. Jean."

Anne Marie had flung away the traps, and Pierre had thrown away most of his ammunition and fishing tackle. His little mirror went, also his shaving things.

Finally they reached a place only about ten miles above where the Peribonka, making a graceful sweep, allows some of its waters to run off to the left and fill Lake Tschotagama.

"There's a way down the lake and into a river, all the way to Chicoutimi, I understand," said Pierre.

"If the wind was right we could sail a raft down through the lake," said the girl, "but the river is small and bad."

"Yes, I suppose we had better keep on down the Peribonka," he replied. "We'll be all right when we get down to the first falls. There we can get provisions, and after that we can float down to the mouth of the river and get a steamer, or find horses."

"From here, with a light canoe, we could go down in two days or a little over," said the girl.

"I'd give five hundred dollars for one, and say thank you," he asserted.

November had come, and the next day there was quite a fall of snow. For an hour or two it came down quite heavily, a dry feathery cloud that whirled thickly over them, so that they could see but a short distance ahead, and which, after it passed off, left the mantle of winter upon the ground.

Pierre thought of the joys of boyhood when the first coming of snow spoke of winter sports. It would send him to the loft where skates, toboggans, and snow-shoes had been put away during the summer.

But this time, when the downy flakes first came, he had stared at the girl, shaking his head, and she had looked at him. They had gone through so much, and now this seemed like another obstacle rising up before them, a harbinger of cold they were ill prepared to meet, of ice that might interfere with their journey, and, perhaps, of hunger whose pangs they might soon have nothing left to appease.

"We're in for it," he said.

"We must spare a day or two and fix things for cold weather," she answered.

Between them they had a double blanket and four single ones, and Anne Marie went to work with Pierre's knife and cut out some pieces with which she made rough mitts. The provisions had dwindled enough to permit of their being packed in two of the waterproof bags, with their little spare clothing.

This left two empty ones; in which they made a slit in the bottom and armholes at the sides. They could be drawn over the head like pouches and would keep out the water and wind. But this left a lot of stiff unyielding material around the neck, and the girl cut some of it away and did a bit of clever sewing. What was left of the caribou hide, ill-prepared though it was, served to make two pairs of moccasins.

This took nearly a whole day, for Pierre could give but little help. The waterproof bags worn over their clothing would keep their bodies warm, but the arms would suf-

fer, and so they attached sleeves made of blanketing.

In the evening, and all that night, the cold increased, and in the morning it was freezing hard. They had to break ice near the shore to get away, and the water froze on the poles and covered the raft with ice, wherever it splashed upon it.

It was a very sudden coming of winter weather. If this cold were to last the river would soon freeze over.

Pierre noticed that the girl was less well-protected than she should have been. Her winter clothing had been lost in the wreck of her canoe, and she possessed but a thin woolen skirt. A large piece of the blanket that had already been cut into was left, and he insisted that she should make a pair of trousers for herself out of it.

She worked while they floated down the river, and in the evening when they landed. By early morning she had finished a rough garment. The stove going at night, would keep them comfortable in the tent.

They reached Lake Tschotagama before dark, and Pierre pushed the raft out of the strong current, turned to the left and entered the narrow opening into the lake. On the right side there is a little bluff, twenty-five or thirty feet high, upon which they decided to camp.

This was the usual limit of tourists' journeys up the river, and they found plenty of traces of former occupancy. A large tree had been broadly blazed, and some names were penciled upon the white wood.

It seemed like getting in touch again with civilization to find that these men from New York and other big cities had been fishing there, unless several empty whisky bottles strewn around the site of the camp had interfered with this pursuit. But Pierre felt disgruntled to think that if he had a canoe he could easily have been down to the first falls in two days.

A survey of the remaining provisions left him somewhat anxious. They would last, at the present rate, perhaps eight or nine days more, although there was a good deal of tea. There were ten falls below Lake Tschotagama, besides some rapids over which they would not be able to take a raft. Each one of these meant the building of a new craft, and they had discovered that on an average they could not make more than one a day and do any traveling also.

If the river were to freeze over they would have to walk. This would be easier and faster than rafting if the ice should be

solid, but they knew that it would take a long time to make it fit to bear their weight for long distances, though it would interfere with the raft.

Wherever the water was rapid they would have to walk alongshore, for in such places the ice would not make till late in winter.

As they had their supper under the tent, that evening, Pierre suggested that they might have to tighten their belts before they reached their destination, but Anne Marie shrugged her shoulders, declaring she had often gone hungry, and that it did not matter so long as one did not die.

The young man could not help admiring her. She was made of a stuff that differed in every way from the material out of which the greater part of the women of civilization were built. Suffering, hunger, cold, hard toil, all these were accepted by her as the natural incidents of life.

She was pleasant and helpful, appearing to have no ambitions and no desires that could not be easily satisfied. She was strong and willing, and seemed to be grateful for the smallest thing that was done for her. Her intelligence was undeveloped along most lines that formerly he had deemed essential, but what a companion she was in the woods! Ay, she was a fit mate for a man!

By the fitful light of the little stove he looked at her. She was sleeping peacefully upon her side. Her fine features seemed to him a new and interesting sight. It did not appear to him that he had ever studied them before. She had at first been to him a poor sick thing, like an ailing dog, and he had done for her as much as he would have done for any suffering being.

She had even, as belonging to another race and another world, for a long time hardly appeared to him as a woman, but merely as some thing entitled to kindness. And now he thought of her as a companion and as a mother of men, and through his heart there passed a pang, a desire that things might have been otherwise, that his existence might have been thrown among her people and in her land.

Sleep came to him at length, but he dreamed a great deal, and in his visions saw himself walking hand in hand with Oumemeou, the dove, toward blue and purple hills, and farther white mountains, and along transparent lakes and singing rivers, and through forests whose aspens and birches, whose pines and spruces, murmured sweet things and spread carpets of leaves

and needles before them, redolent of the scent of the wilderness.

During the night a rabbit was caught in their snares, and they had it in the morning for breakfast, with plenty of hot tea. It did not make a big meal for two and a dog, but they decided it would have to do, and they enjoyed the luxury of being able to start without making a new raft. The temperature was still lower, and along shore the film of ice was thickening and widening.

They made the seven miles to the next carry in less than three hours, and after portaging all their stuff began another raft. It was no sooner finished, however, than it began to snow so hard that they decided it would not be safe to travel.

They could not see twenty feet before them, and it would not do to run chances of being carried down rapids without being able to guide themselves, or even down the big falls at the *Chute a McLeod*.

At dusk the snow ceased, but it began again in the morning, coming in wild flurries with a high wind. Their raft was sunk deep with the ice that had formed on it. Pierre worked hard to clear it of the snow that covered it, with the blade of a paddle, and to chop the ice off.

They finally started and traveled a couple of miles. By that time there were several inches of snow on their craft, and the poles were so thickly covered with ice that they could hardly handle them. When they sought to make the shore it was so thick that they could not land for some time, until they reached a place where the water was swift near the bank.

"It's no use, Anne Marie, the ice makes so fast that we can't handle the raft any more," he told the girl. "Unless it gets less cold we'll have to travel along the bank, and take the river when we can."

They were so cold that they stopped to make tea, and finally decided to stop for the remainder of the day. The flurries of snow continued to fall, and they had a hard time making camp.

They had landed in a desolate place full of rocks, upon which a scanty number of small trees eked out a precarious living. The raft was anchored by tying it with a rope, and for greater safety two poles were driven in the bottom of the river between the logs.

In the morning it was still there, but it took long to chop it fairly clear of ice. It did not seem very buoyant, and with much trouble he added two more logs to it. A short time after starting they reached a dead water

whose whole surface was so covered with ice about an inch thick that they had to stand up and break it down with their poles to make a channel.

"The cold has come," said Anne Marie, "no more warm days. There will be no more drifting down the river."

When they got through the ice, they floated down another mile or so in swift water, and brought up hard against a sand-bar. They worked a long time to clear it, but unsuccessfully, and had to walk to the shore through seven or eight inches of water, their heavy loads making their feet sink deep in the sand. Nearer land they came to ice, through which they often broke; but, as there were only a few inches of water, they got no wetter than they already were. Pierre had carried the dog, fearing that a prolonged ice-water bath might injure it. He left him on shore with Anne Marie, and returned for the rest of the things. When he got back, there was no more sensation in his feet.

Anne Marie had lighted a fire, and they took off their moccasins and rubbed their feet with snow. Pierre was slightly frost-bitten. He suffered keen pain by the time he put on his spare stockings and shoes.

After having tea and a little of their precious meat, they started to make their way along the shore. The snow was soft and not so deep as to make the walking very troublesome, excepting in little drifts. All their luggage was now contained in two packs. Pierre carried about sixty pounds, and Anne Marie little less. Their progress was twice impeded by streams they had to cross; and, after getting over them, they came to a high bank running parallel with the river, up which they had a hard climb.

"If we could only find a place with lots of game," said Pierre, "we could wait till the river froze hard and walk on it as often as possible. Then we'd make good time."

"No game here," said the girl, "except a few rabbits and partridges."

In the morning it was still very cold. The lakes must all be freezing over, but the swift rivers took longer. One of Pierre's feet hurt him a good deal, but he paid little attention to it. The bad going and the constant changes of direction in order to avoid rocks, windfalls, and deep gullies wore into the soul as the tump-line ground itself into his forehead.

At times it seemed as if they were in a vast prison, from which they sought to escape with ball and chain tied to their feet. Their loads ground them down into the hard surface.

Pierre's muscles now resisted the wear and tear of the labor well, and he only felt sore and tired, as often before; but there was a mental strain, due to the uncertainty of the thing, to the consciousness of insufficient progress, of scanty food, of the thought of the anxiety of the old people at home, who knew not where he was, as he had only said he was going in the Lake St. John country for a trip.

These trains of thought came from time to time, and made things worse. Anne Marie, by common consent, was the pathfinder, and he trod behind her, in a quiet, weary, yet plucky, way. His senses were merely dull with the stupid grind of it all. But he never was the first to call for a rest.

At what seemed to be very regular intervals she would stop and lean her pack upon a fallen tree, or a boulder, without taking the tump-line from her forehead, and, usually in silence, they would wait a while, until the pain seemed to have left their strained muscles.

Yet they knew it would return as soon as they lifted their loads again. During these stops Pierre generally lit his pipe, but sometimes he felt too tired to smoke. He had an immense amount of reserve force and pluck left, but his fairly easy life had never made such demands upon him before. He had never really known what it was to bend his muscles day in and day out to a strenuous task, and to take it up again and again without surcease.

Ou-memeu was not more effective than he, excepting in that her greater knowledge of the woods made her his superior in traveling. But to her the work was not so irksome. It was the life she knew, the only life she had ever known—harder at one time than at another, but such as was necessary, indispensable, and from which none of her people escaped.

From morning till night the hours of toil went on, each interrupted by a couple of short rests. Apparently impassable places would be reached, and they would consult in a few words.

Sometimes they dropped their packs, and explored; but nearly always the girl discovered the best way around the obstruction. This sort of thing gave their heads and backs a rest, yet was unwelcome. It kept them back; it interfered with the grinding toil that, after all, constantly brought them nearer to their destination. They were seldom in sight of the river, as there was hardly ever any fair walking along the shore. But the girl's sense of direction was never at fault.

At first Pierre argued with her at times,

and insisted that she was mistaken; but it always turned out that she was right, and after a while he entrusted the whole matter to her, blindly following her grimly and uncomplainingly, his mind often occupied with trivialities which somehow lessened the toil.

Toward evening, when they began to think of making camp, he reckoned that they had been traveling for nine hours. The actual walking had taken perhaps seven of these, and the rests, including a midday stop for lunch, would account for two.

If they had been going in a straight line, they would have covered about fourteen miles. But he thought of all the turns they had made around obstructions of many kinds, and feared it could not be more than ten.

Just then they came out upon the shore again, and Anne Marie looked intently, seeking to recognize the place.

In a moment she said she knew where they were.

"How far have we gone, Anne Marie?" he inquired.

"About eight miles, reckoning the course of the river," she answered. "We are not far from McLeod's portage."

He knew she must be right, and that the pace had really been very slow, with their big loads and the dreadful country they had traversed. He was too tired to feel more than a slight disappointment. They threw down their packs and made camp.

The three birds were skinned. They were not very fat, and hardly made a meal for two people and a dog. More food had to be added from their store, yet it was a saving for which they felt grateful.

The sky was leaden, and promised more snow, but the fire was cheerful and comforting as they sat close to it, and life did not seem so very dreadful just then.

The hard work and the cold had made them ravenous, and now, with full stomachs, and a hot fire before them, they sat in a semitorpor that was pleasant. With his old pipe in his mouth, Pierre again looked upon existence as a thing worth being blessed with.

He had followed the girl, who now sat contentedly by him, the whole day long, allowing her to lead, realizing that in the woods she was his superior. Considering her smaller size and weaker muscular power, she was doing the better part of the work.

This interest in her was constantly growing. Yes, he admired her. She was becoming an object of more intense thought to him with every day's journey.

He caught himself staring at her several times, and this apparently made her uneasy, for she kept her eyes cast down, in silence.

During the night there was another heavy snowfall, and when they started again the walking was worse than ever. But they were pleased to see that the river was freezing over more solidly. This could easily be seen in spots where the surface had been swept clean by the wind.

They ventured out upon it cautiously, stepping gingerly through the snow.

"It is pretty strong," said Pierre. "I suppose we ought to pray for colder weather to enable us to travel on the ice. It would not take us long if we could follow the river."

"Two more days of this cold would do," replied the girl.

Once or twice the ice under their feet gave out a sound of cracking, like faint pistol-shots, and they returned to shore.

Resuming their loads, which were becoming sadly lighter, they set out again through the woods.

That morning they had again weeded out the bags, and found a few objects that they could spare, and which they abandoned.

They plunged through heavy drifts, and, at times, in the forest found the ground nearly bare. In the open, the snow was slightly crusted, but they broke through this, and it made awful going.

In the swamps the water was frozen quite solid, and, as they no longer sank in the soft ooze, their progress here was easier. It was again a dreary grind, but for some time they felt better than they had the day before, for it was colder and the sky had cleared.

The snow was dry, and crunched loudly under their feet. Pierre thought that the temperature must be near zero, for the cold nipped their hands and feet, and their breaths went out in white puffs. Paddy sometimes would flounder badly, but was plucky, and worked himself out, and soon found out the wisdom of walking quietly in the tracks made by his master and the girl.

There were so many twists in the river, from which they did not dare to go too far, that they were compelled to make many turns, and it took all day to reach McLeod's portage, but a few miles farther on.

They camped here, in the bitter cold, and went on in the morning, as soon as the light permitted. The portage ran over a high hill. It was hard walking, but the path was plain.

Once below the falls, however, they had to take to the wilderness again.

(To be continued.)

HELP FOR MEN WHO HELP THEMSELVES—NUMBER 34.

(The Rogers Group. No. 5.)

THE SUPERINTENDENT OF MOTIVE POWER.

BY ROBERT H. ROGERS.

IN his previous papers in this series, Mr. Rogers dealt with the more subordinate railroad officials. In this article (the concluding one in his series) he presents a study of the superintendent of motive power. Among the men who rapidly sway the destiny of a transportation system to either success or failure, whose moves foretell whether passenger and freight receipts are to go on climbing, or whether the vampire of careless management and higher operating expenses shall result in the downfall of a once prosperous corporation, the superintendent of motive power is some pumpkins. He is ranked with the master spirits of railroading. The president, the general manager, and the board of directors look to him for new and original ideas and up-to-date methods for increased efficiency of operation.

**An Important Position Which Can Be Successfully Filled Only by a Leader
of Men Who Is Also a Mechanical Genius and a
Master of Details.**



HIS is the elevation which, to the tyro, and even those in the business who should know better, savors of terrapin on toast, popping corks, and luxury amid the sumptuous environment of a palatial private car, from whose velvet-upholstered depths the occupant waves through the smoke of a dollar cigar indulgent permission for the sun to go on shining. A somewhat fanciful thought, perhaps, but it embodies, nevertheless, how some misguided persons picture the superintendent of motive-power, or mechanical superintendent, call him what you will.

It has always been an imposing position to the subordinate official, for the reason

that a car goes with it. The true appeal of the private car is too subtle for definition, but it is the most impressive spectacle about a railroad, and it is not necessary to remain among railroaders to hear its mention as synonymous with all the good things of life.

They are wrong—all whose thoughts follow such lines of reasoning. These cars are nothing but traveling offices—workshops, in reality, and far removed from anything like real comfort.

The principal passenger would much prefer to use the regular train service of the road while on his rounds, and does so, except on occasions wherein the length and scope of the journey render such procedure prohibitive. Then he takes his car along,

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and keeps from dropping a week behind in his office-work.

There is little pomp and circumstance about the position, although this assertion may serve to cast doubt on another cherished illusion. The oft-quoted big head cannot be properly associated with this grade in the service, because the previous schooling has been too leveling. The heartless past has vouchsafed too varied an occupancy of houses built on the sands for the cultivation of ostentation, and one only needs to step aboard any one of these cars, which are to be found pushed into clear around some terminal, in order to make sure.

You will have far less trouble, by the way, in effecting an entrance than if you applied at the superintendent's headquarters in the general office-building, as formality is largely waived, and people are coming and going all the time. Your ear, however, will not be pleasingly greeted by the noise of the aforementioned corks. Instead, it will be assailed by the click and rattle of typewriters, and you are more liable to stumble over a bunch of file-cases than you are over a velvet divan.

Over there, in the corner, is the man you are looking for, and many things about him are apt to belie the conception of your ideals. They totter in presence of the fact that, while running his eye and pencil over a big blueprint spread voluminously over a temporary drawing-board, he is munching a plebeian cheese sandwich, instead of the delicacy mentioned at the beginning of this article.

A Democratic Individual.

More than likely he is attired in an old frayed coat, with the elbows out, and a Scotch cap pulled over his eyes; a parody somewhat of the part you had perhaps expected him to play. Presently he will ring, and the stenographer will jot down a few rapid remarks before taking away the blueprint and attachments, but not the sandwich, however, to which the chief clings lovingly throughout the bustle. He does not part with it for a reason, as it may now be 5 P.M., and it probably represents all he has found time to eat since breakfast.

"There goes the boss out for another junket with his car," is an absurd statement one often hears. If any idea of a junket is or has been entertained, dismiss it now. Champagne corks do not pop in official private cars, nor in the knock-about borrowed temporarily by the roadmasters' committee while deciding which section-foreman is entitled

to the annual prize. Nor even in the much more exclusive one which houses the president when on his travels.

The railroad is more worthy than the law of the title of jealous mistress, and it brooks no rival. Officials understand this, and they would not be officials if they had not well digested its truth.

An Office on Wheels.

You will note that the car, during its limited stay at a terminal, transacts a tremendous amount of business. Possibly it has not been side-tracked at this particular point for two or three months, and it becomes at once the center of interest, at least from a motive-power standpoint.

There are always minor officials of more or less importance constantly riding over the road in the interests of that department: inspectors of locomotives, machinery, and cars; indicator experts, and calculators of tonnage rating, all of whom report to the superintendent of motive-power by letter, and only when he is on the line have an opportunity to meet him face to face.

They naturally have an accumulation of business to unload, sufficient to stagger any but a thoroughly trained mind and a brain accustomed to making quick decisions to avoid delaying a costly game.

Along these lines an incident may be recalled to illustrate the general versatility of the men who hold down the strenuous job of head of the motive-power organization. It was on an occasion when the car used by the general mechanical superintendent of the Erie Railroad stopped at Port Jervis, New York, while westward bound on a general inspection.

For two weeks previous to its arrival several experts in their line, had been conducting an elaborate series of locomotive tonnage tests on the new Erie and Jersey extension, and with much complaisance called to make a report.

The results of the test, properly tabulated with grade resistance, curve resistance, rolling resistance, and all associated features of moment, were spread before the chief for approval; but in less than an hour, with a lead-pencil and his own calculations on the back of an envelope, he had literally shot the record full of holes.

He pointed convincingly to an error here, and a graver one there; to the omission of essential detail, and to the unnecessary addition of undue complexity, until the experts

retired very much chagrined, and ran the test over again.

This little by-play proved singularly appealing to the writer, because he knew that the men on the test had but that one assignment to harass them, while the general mechanical superintendent had on his mind at that time no less than one hundred items of widely varying scope.

For him to thoroughly revise their calculations on a moment's notice could not but compel admiration for the sterling qualifications which made such a feat possible.

Grasping the Details.

A. E. Mitchell, now retiring from railroad work, when superintendent of motive-power on the Lehigh Valley, was equally resourceful, especially when anything like a showdown was in order. He was probably more proficient in the ready employment of formulas to score his point than any man the business ever knew. He once had some engines of a certain class which were claimed by their runners to be slippery, in a condition where nobody could hold them down, and were quoted as "slipping out of a sand-house," until the division where they run became much agitated.

The master mechanic in that territory advanced the theory that the steam pressure should be cut down to lessen the tractive effort, and came to the car, on the occasion of one of its visits, with his road foreman of engines, to present this contention.

It didn't take Mitchell long; however, after asking a few pertinent questions, to effectually dissipate this hypothesis. He proved to their satisfaction, through a few simple figures, that the steam pressure did not need to be changed, as the tractive effort was at present less than the adhesion on any one pair of driving-wheels, and, consequently, the engine could not slip from overpressure.

This demonstration was in turn conveyed by the road foreman to the engineers, and presently everybody forgot all about the slippery motive-power.

Receiving Reports.

The road foreman of engines is always a visitor to the car when it is in his territory, and the superintendent of motive-power is glad to see him. He is essentially the best-posted man on the division regarding locomotive performance, as he is charged with

riding on the engines all the time, and is fully competent to discuss the all-important matters of fuel and oil consumption.

It might be added that he will be sharply criticized if he fails to make at least an average good showing in these two items, the criticism being based upon the tabulated statement prepared monthly which portrays the economics of the entire system.

The master mechanic must necessarily pay his respects; recognition of authority demands this, if nothing else; but even if he should not call, any idea that the superintendent of motive-power will fail to take advantage of the opportunity to visit him had best be abandoned, because this is really the purpose for which the car was side-tracked at the division terminal.

The master mechanic had better improve the hour or so of friendly notice which he may have had from the train-despatcher that the car was coming to get his shops and engines in apple-pie order, as they will be in for a relentless scrutiny from one who knows where to look for trouble.

Finding the Flaws.

Notwithstanding the reports which pass without intermission, daily, weekly, and monthly, from the office of the master mechanic to that of the superintendent of motive-power, and in which the details embodied might be assumed to fully portray the conduct of the division, there is still much which they do not picture.

They omit mention of broken window-panes, roundhouse pits flooded with water, machines standing idle, material misapplied, jacks in serried ranks, out of business for lack of a little tinkering, and many, many other features incompatible with things as they ought to be; hence the necessity for an analysis of the local situation from a personal view-point.

At times a thin-skinned master mechanic will become aggrieved at the criticism leveled at his plant and its *modus operandi* while accompanying the superintendent of motive-power on one of these inspections, and very often it does seem somewhat unkind and ill-advised.

The master mechanic may not take a sufficiently broad view of the matter to appreciate that these things are only skin-deep after all, and that his superior can have no other logical motive than to help him out.

It must stand to reason that when an official clothed with so much authority makes a

lengthy visit to a large general shop, and departs without finding any fault, he either intends to make a change in its head, has no interest in the head's success, or doesn't know enough about the business himself to criticize.

As the latter is an extremely unlikely contingency, the master mechanic should really feel better that he is thus criticized, because he can depend upon it that when a superintendent is finding a little fault he is simply picking specks off a good apple; and if he thought the apple was spoiled he wouldn't take the trouble to bother with it.

Where Seeing Means Saving.

Probably the most painstaking inspection trips ever made were those of F. N. Hibbits, formerly mechanical superintendent of the New York, New Haven and Hartford Railroad. That he was a master of detail may partially explain the diligent effort which he always made to delve to the bottom of every department represented, from office to turntable.

Amazing as the statement may appear, he could glance into a single bin in a large storehouse and say positively whether or not it contained more stuff than on the occasion of his last visit, maybe six weeks before. With this remarkable memory was associated an equally remarkable acuteness, as many will attest who ever tried to hide anything from him on short notice.

Whether or not some of his rulings delivered on the ground were exasperating from a strictly local view-point, we were still always glad to see him come around the place.

We knew that he was honest in his motives and convictions, inspired only by a sincere enthusiasm for the general good of his department. He attacked the problem of motive-power administration with much effectiveness by maintaining an unceasing vigil over leakages, whether represented on the pay-roll or the stock account.

The results were always substantial, as under his régime a single division of the road cut down its pay-roll \$20,000 in one year, and reduced its stock balance from \$55,000 to \$30,000 in the same period, the service remaining unimpaired through the retrenchments.

Hibbits realized that good stock, not to mention obsolete stock, represented money tied up without interest, and in curtailing this to a working basis was simply anticipating what is a requisite now on the Harri-

man lines for every man in a supervising capacity who wants to hold his job.

Still, other matters vital to the general efficiency of the division, if not to the system as a whole, remain to be considered before the superintendent's car can be attached to the train for further movement. One of these, a personal duty, is to quietly sound the labor situation; to know that the master mechanic and his foremen in that territory are living up to the letter of the agreements between the various trades and the company.

It is an unwritten duty of a mechanical superintendent to keep the peace, not only between the organizations and the company, but between the foremen themselves and the master mechanic. Lack of harmony has shattered many a perfect organization, and the superintendent of motive-power must restore it at the expense of a house-cleaning, even at the expense of men whom he may have made. With a full realization of all this, the superintendent cannot leave one division for the next with his mind at ease until assured that not the suspicion of a cloud rests on the horizon.

So much for the visit to a single point on the system. Multiply this by ten remaining divisions, add innumerable letters dictated and weighty conferences while the car is in transit, divide by eight, as the days covered by the inspection, and you will agree that each day has its full quota of business.

Monthly Routine.

When the monthly trip is over the mechanical superintendent takes up the remaining three weeks of good hard work in his more or less imposing office at headquarters. He always endeavors to be at home the greater part of the month, as this permits opportunity for frequent conference with his superior, the general manager, as well as those of his immediate staff, the master car-builder, mechanical engineer, and engineer of tests.

In some places the office apportionment permits these important officials to be under the same roof with their chief, although he is just as frequently far removed, and business intercourse necessarily carried on through correspondence.

In order that he may be fully advised how his subordinates, the master mechanics, are conducting their various divisions, the majority of railroads employ a system of reporting by forms. There is a daily telegraphic report for the engines held in any one roundhouse every twenty-four hours,

thus illustrating at a glance the amount of available power on that division. There is also a similar report by wire of engine failures, enumerating every instance during the same period where a train has failed to make its schedule time arising from improper condition of the power, and still another message report from each division stating whether or not the monthly appropriation for a single day has been exceeded.

Telegraphic Reports.

These various reports are compiled by the clerks on a large sheet for ready reference, which represents the entire system. The items are to the left, with parallel vertical columns representing the divisions, thus affording the chief a graphic picture of these important details in the day just past.

It depends on his personal caliber just what action will be taken. Should he notice that the A division, with a daily appropriation of \$300, has reported an expenditure of \$375, he will likely wire the master mechanic sharply to the effect that if he keeps this up he cannot possibly remain within the monthly allotment for his territory.

If on the B division five engine failures loom on the sheet where heretofore one has been the daily average, the chief thereof may be reminded that the bottom appears to be dropping out, and asked to kindly advise what particular phase of the local situation cannot be controlled.

This daily summary of telegraphic reports is the real pulse of the motive-power performance, and every item thereon implying a retrogression from some standard scale of efficiency brings a reminder to the man in charge; and for the moral effect, if nothing else, it must go forth that day. Thus, action is different than in the case of the many monthly reports, as these imply broad results, and may be more leisurely digested.

Engine Economies.

In connection with these latter statements, that indicating the consumption of oil per division is considered of special importance. Most locomotives are expected to run one thousand miles at a total cost of \$2.25 for all lubricant and illuminating oils, including valve, or cylinder, engine oil, and headlight oil.

In fact, there are oil-producing companies who guarantee to lubricate an engine for that very amount. It is, therefore, necessary to

draw up an oil schedule covering each run on every division, and to apportion the allowance per engine, generally on the basis of one pint of valve and three pints of engine oil per hundred miles, so that the total will not be exceeded.

It might be that the A division, during July, August, and September, lubricated for \$2.30, and in October jumped to \$2.70. This is a direct increase of forty cents per thousand miles, shown on the report mentioned, and inquiry is in order to learn the cause.

The deadly comparative basis prevails in connection with the oil performance report, as, indeed, in the instance of all the others; and there can be no evasion in the explanation.

There may, of course, be a legitimate reason for the rise in cost; new engines breaking in and requiring extra oil, extra long hours on the road, and many others which would be valid; but, whether valid reasons or simply excuses, the explanation must be forthcoming. The idea is to prevent lapse into carelessness.

Through all the monthly reports the same idea predominates. The embarrassing duty of having to explain a worse performance than some one else serves to keep the master mechanic on the job all the time.

Filling New Wants.

There is another report showing the number of overhauled engines turned out of the various back shops for the month, but particularly the cost of the repairs which they received. If the cost is higher on the A division than that shown by the B, C, and D divisions for similar work, something is wrong—at all events, a condition is present on the former division requiring correction.

It is through these and other statements that the superintendent of motive-power may absorb fairly accurate information regarding the efficiency of the various divisions under his jurisdiction, and, after a year or so, can say conclusively which master mechanic is delivering the goods, or *vice versa*.

They exemplify the wonderful system prevailing in railroad organization, in which, no matter how much familiarity may be attained, there is always something new and something to admire every day.

The matter of forms may seem overdone at times, even absurdly so, but the idea is that only results count; results compared with those achieved somewhere else under equal conditions.

Independent of his routine work, which heretofore has been commented on, the superintendent of motive-power must be an originator. He is paid \$10,000 a year, not for scanning a multiplicity of forms and making trips over the road, unpleasant as the latter may be, but for thinking all the time how to improve his department, and particularly to reduce general costs through labor-saving operations in the shops.

If he cannot show increased efficiency and reduced expenses over the administration of his predecessor he is labeled a failure, and the general manager will be likely to very shortly let him know it.

In view of all the duties mentioned in this article which pertain to the position, it might be thought that little time would be left for original research; but some superintendents have managed to find it.

F. W. Johnstone made a sterling record on the old Mexican Central in the face of two handicaps—no money to spend, and any amount of interference.

While organizing his department on a common-sense basis he still found time to develop for railroad service the native labor of Mexico, so that dependence would not have to be placed on the elusive floating element from other countries. He worked out and patented a blow-off cock of his own far superior to anything else in use in that bad water country, and a compound engine of his design was the only thing which would handle a train over Rascon Mountain in those days.

Men Who Succeeded.

A. J. Cromwell, of the Baltimore and Ohio, was the successor of the truly great men, Ross Winans, Thatcher Perkins, and John C. Davis, whose genius left its reflection in every car and engine which the B. and O. owned when he became elevated to the position; yet he designed and built, in the Mt. Clare shops, the most efficient power for its inches ever operated by that or any other railroad.

If you ask them there to-day, they will tell you what they think of the Cromwell eight-hundreds in their time, and may point to some of them running yet.

H. D. Taylor, of the Reading Railway, designed and built, last year, in this age of competition, a three-cylinder locomotive of entirely new design which is giving wonderful results at present in service on the New York division of that road, and he planned and brought into being the great Reading

shops, which, in perfection of detail, are probably the best appointed in the country.

T. Rumney assumed charge of motive-power affairs on the Erie when, to say the least, they were in a bewildering condition. The management of that department had changed so often that fifty sets of ideas were exemplified in the design of merely minor locomotive parts, and a dozen methods of doing the same job could be observed in a trip over the road.

The contrast afforded after three or four years well-directed effort is startling. Sound and economical ideas now prevail in every shop from Jersey City to Chicago; sensible labor-saving devices have been introduced and circulated over the system by special men for the benefit of all master mechanics. A single casting serves where formerly a dozen had to be carried in stock; standard shop practise-cards are in vogue and rigidly adhered to; and the general efficiency of the power, based merely on comparison of the engine failure reports during the period, has increased over one hundred per cent.

The Advantage of Prosperity.

The ease with which the work is done, broadly speaking, depends largely upon the prosperity of the railroad and on whether the general motive-power appropriation is sufficient for the adequate maintenance of the shops and rolling-stock, to provide personal help for special investigations, and to develop new ideas.

The Pennsylvania System represents this enviable condition. It is characterized by a broad, liberal policy on the part of the management, which finds its reflection in the amount of money allowed each department.

In consequence, its mechanical department has always been identified with originality and research. Under the direction of its chief of motive-power, \$200,000 has been expended in one year for research work alone for the possible betterment of existing appliances.

On a prosperous railroad the superintendent of motive-power will have on his personal staff, a master car-builder, at \$4,000 to \$5,000 a year, charged with the administration of the car repair department; a mechanical engineer, at \$2,500 to \$3,500, under whom is the drawing-room; and an engineer of tests, at \$1,800 to \$2,500, to test and analyze all crude material purchased for the mechanical department, and to whom the various inspectors make their reports.

This is the usual organization; but if the road is richly endowed, the mechanical superintendent can still surround himself, through the mechanical engineer's office, with technical men, which training he may not have had opportunity to acquire, provided he came up in the usual manner traced in this series of articles as the evolution of the apprentice. Then, if an inspiration should come to him regarding a new type of engine or car to meet the growing requirements of his road, a rough sketch and pencil-notes will suffice as the groundwork from which they will work out the details.

He may even be so fortunate in the way of money to spend as to have attached to his office a thoroughly practical and shrewd mechanic, possibly an ex-foreman or master mechanic of varied experience, and he can use this man to much advantage. Sometimes frames commence to break mysteriously under engines, or an epidemic of hot boxes may crop up on some division, which means an assignment for this practical assistant.

They might break and run hot for six months before the facts were arrived at through the medium of correspondence, but he will repair to the scene and investigate the conditions without fear or favor, and in many cases nip the trouble in the bud.

This position, known as general inspector, is fast becoming recognized as an indispensable adjunct to the superintendent.

The poor railroad cannot do these things; in fact, to make both ends meet, it must re-

strict the general supervision in the motive-power department to the master car-builder and the mechanical superintendent. Some of them even cannot offer a mechanical engineer, to say the least of a test department, and the work under such conditions is harassing in the extreme.

Whether with money to spend or without it, the duties of the position are exacting; but what has been said of the subordinate grades in their turn, there is no position connected with the motive-power department not synonymous with hard work and unceasing vigilance.

They have few emoluments to serve as a counterbalance to the grief of possession; but it is, nevertheless, great for a superintendent of motive-power to feel in his heart that he has risen to the height of things, and to many temperaments this is an adequate reward.

It is not the appeal of the dollar, although its coming has been long delayed, but the feeling which prompts a man to view with a swelling heart the fact that he is master of a thousand locomotives, fifty shops, and twenty thousand men; the custodian of a trust wherein the slightest deviation from the rigidly defined way might result in chaos.

It is great to know that those who have been so honored with the appointment must feel the unswerving confidence which will permit the trust; and there are few of these men who, for any consideration, would part with the elation which the position cannot fail to inspire.

A PLEA FOR THE PILOT.

THE pilot, known in the vernacular as the "cow-catcher," which ornaments the front end of American railroad locomotives, has always been a subject for ridicule by foreign railway men. Perhaps it has been partially responsible for keeping alive the tradition that the United States is still a jungle filled with wild animals and Indians.

That the pilot is a valuable safety attachment to a locomotive even on the highest class American railways, where cows, pigs, and other stray live stock are not permitted to promenade, will be agreed to by all American railway officers.

In fact, from two recent news items in the German technical press, we judge that European builders of locomotives for export might copy American railway practice in the matter of pilots with advantages to their customers.

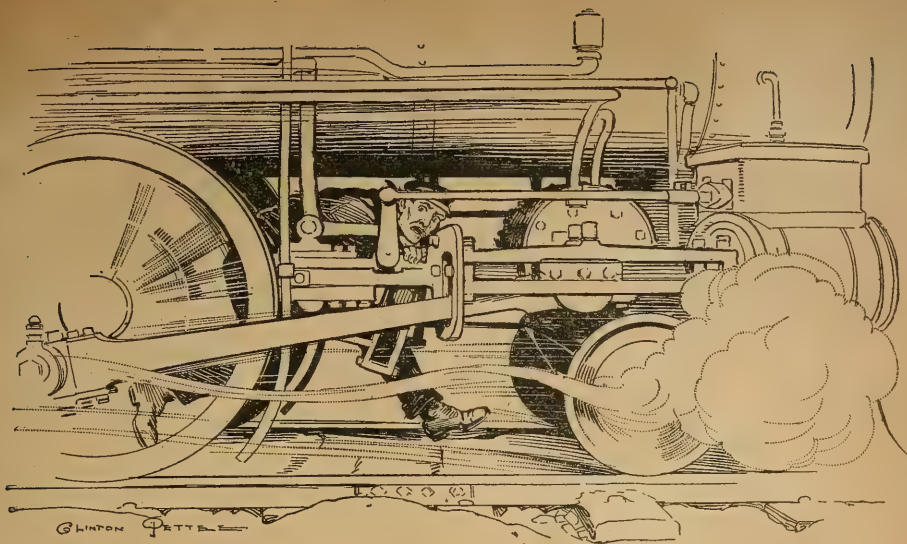
The first of these items records two recent collisions of trains with "wild elephants" on the Siam Railway, near Bangkok. In both cases, it seems, the elephants were killed, although one of

the animals was "large" (size of the other not stated). But the "large" elephant was ponderous enough to derail the train (although it was double-headed and had twenty-seven cars), tipping over both locomotives and telescoping six cars.

These locomotives surely ought to be protected by "cowcatchers" designed for an elephantine rolling load; as fences and cattle-guards cannot keep elephants off the line.

The other item is the news that some heavy locomotives which a German firm is building for the Damascus-Mecca Railway are to be provided with "cowcatchers." Not large ones, but sufficient to butt a stubborn camel calf off the track.

So it seems that in this case the wild-animal conditions have been duly taken care of. If Siam will now make the necessary addition to its engines, so that America, Siam, and the Arabian desert will class together, we may regard the cowcatcher to be fairly standardized for all railways which traverse a "howling wilderness."—*Engineering News*,



UNDER THE ENGINE.

BY F. H. RICHARDSON.

Bill Didn't Go to the Beanery as Usual, and
Something Out of the Ordinary Happened.

WHAT is this I hear about old Jack Lawton's fireman getting caught under the engine and nearly killed, Bill?" inquired the eagle eye as he put the finishing touches to a new-fangled spring seat-box cushion he had purchased. He was fastening it into place as the engine stood in the roundhouse. "I heard it was a pretty close call."

"Close call? You bet your steam-gage it was! It was so close you couldn't have shoved a piece of tissue paper between Dick Sommers an' his little six feet of earth to have saved your soul!

"It was so close that the old feller with the scythe shook hands with him half a dozen times in ten minutes."

"How did it happen, Bill?" asked the eagle eye, as he seated himself comfortably on the new cushion and cocked his feet up on the throttle-lever.

"Well, of course, I wasn't there myself,

but I heard all about it from the head brakeman, Old Lawton, and Dick, his fireman.

"It was this way: When they pulled on to Hillsdale, Lawton was mad enough to bite a chunk out of the boiled-head. Dick was nursing a big, fat grouch himself, and the head brakeman had deserted the ship entirely.

"He was riding back in an empty box car, cussin' everything in sight, and putting in most of his time chasing himself from one end of the car to the other to keep from freezing to death.

"They'd had an awful time of it all that day. There had been cars to set out and others to pick up at every tank, and you know how them cranky station-agents is, wanting every car set exactly at the cattle-chute or the freight-house door.

"Why, when I was firing for old Bill Hawkens, one of them trouble hunters actually made us uncouple from the train after we was all through, and go back into the siding to move a box car just six inches.

"Gee! how I did love that man! I could 'a' sawed his head off.

"Well, as I was saying, they was having troubles of their own. The coal was about half snow and, of course, the old tub Lawton runs wasn't steaming any too well."

"They certainly were having a merry time of it," remarked the eagle eye.

"Yes? Cheer up, sonny! The worst is just coming in sight around the curve! The left-hand injector had gone on a strike early in the game, and about an hour before we got to Hillsdale, the other one got something wrong with its chronometer balance and cylinder escapement.

"It performed its duty of pumping water into the boiler all right, but it made a noise like an able-bodied buzz-saw. Of course, the prospect of having to set beside the thing all the rest of the trip made old Lawton feel real happy and good-natured.

"He told me he felt so peaceful and contented when he pulled into Hillsdale that he would have actually enjoyed running the engine and train off the end of a bridge.

"The head brakeman had gone back to hibernate in a box car. He said it was two and a half degrees colder there than at the north pole, but he preferred freezing to having his hearing put eternally and everlastingly on the fritz by a cussed brass squirt gone crazy.

"There is a beanery at Hillsdale, and Dick had been in the habit of polishing his teeth on some of the viands, while Lawton was oiling round. Sometimes it would happen he would get hold of an extra tough piece of pie, and couldn't get it broke up into pieces small enough to go down his neck before the train pulled out. When that happened he would jump a car back in the train and walk ahead to the engine over the top.

"As soon as they stopped at Hillsdale that day, Dick climbed down, intending to go over and have a free-for-all with a ham sandwich, but he took a squint into the ash-pan first, and found it chock-full. Of course, that meant clean it then and there.

"He got the ash-hoe from the hooks at the side of the tank and crawled under her to do the job.

"The engine he fires is one of them old eight-wheelers that ain't got no trap-door in the bottom of their pans, so he had to crawl clear under her on his knees.

"Some snow had blowed into the pan, partly melted and froze again, so that Dick had troubles of his own getting the ashes out.

"He bumped an elbow on one of the links and, of course, that helped to improve his temper wonderfully.

"But for all his trouble, he got the job done finally, and was just about to pull out the hoe when the engine moved ahead with a jerk and the drivers spun around, throwing a shower of sparks over him.

"You can bet your next month's pay against a cracked water-glass that Dick set up and took notice real sudden!"

"How did Lawton come to move the engine with the fireman under her?" asked the engineer.



"HE GOT THE ASH-HOE FROM THE HOOKS AT THE SIDE OF THE TANK."



"Say, you just keep your shirt on till I get to that part.

"Old Lawton had always made it a practise to oil at Hillsdale, but this trip he put in the time monkeying with the injector. The time was squandered, for he wasn't a bit wiser when he got through than when he started. That squirt just put its throttle to its branch-pipe, wiggled its lever at him, and went right on working overtime.

"You'd pretty near had to have an ear-trumpet to hear a Gatling gun in that cab.

"He had just got done when the con come up with the orders and give the signal to pull out, so he slammed the lever down in the corner, give the throttle a jerk that set the drivers spinning, and put on the injector almost at the same instant.

"Of course, Dick wasn't there, being real busy doing some stunts down under the engine, so Lawton had to get down and put in a fire.

"By the time he'd finished that, the engine was past the lunch-room door or he might have rubbered in and observed that Dick was not there."

"You don't mean to say that he pulled out—left the station—with the fireman under the engine!"

"Oh, no," replied Bill, with fine sarcasm. "Of course not! Dick was on top of the smoke-stack wiping the dust off the smoke!

"Well, Dick was doing some mighty interesting stunts down under that old mill about that time. When she first started, he supposed Lawton was moving her ahead a little to get at her wedges and driving-boxes to oil 'em, but when she quit slipping and

"DICK HAD BEEN IN THE HABIT OF POLISHING HIS TEETH ON SOME OF THE VIANDS."

the old man in the cab gave her steam again, Dick changed his mind.

"He thought that some one that didn't belong there had got into the cab and had started her by accident. But giving her steam again when she stopped slipping, didn't gibe with that theory. His next guess was that Lawton had gone batty—clean off his base. That injector was sure enough to drive any one to the dippy hut, thinks he.

"Meanwhile, he was letting out yells that would 'a' done credit to an Indian on the war-path; but that was a waste of good atmosphere, for, with that injector going, the battle of Bunker Hill could 'a' been pulled off under the engine without being heard in the cab.

"About the time she got going as fast as Dick could walk stooped over as he was, it popped into his head that he had not told Lawton he was going to clean the pan, and

"He climbed up on the seat-box and leaned out of the cab window to get away from some of the uproar the injector was manufacturing. The engine was beginning to move along right sry, and her exhaust was making some noise itself, for she was wide open and Lawton was too mad to hook her up much.

"For all the racket, it sorter seemed like he heard a shout, or rather scream, coming from—he couldn't tell where.

"There wasn't a soul in sight, so he set it down to imagination and, after squinting around, got down to put in another fire, wondering where in Sam Hill Dick could be.

"The fire in, he climbed up on the tank and took a squint back over the train—nary a fireman was in sight. 'Dick's got left' was the first thing that popped into his mind.

"Now, I suppose I'll have to fire this infernal tub all the way in,' and he growled, looking at Dick's empty seat-box like he'd enjoy kicking the thing out of the window.

"While all this was coming off up in the cab, Dick was stumbling along in the snow, spending his time between trying to keep on his feet, and cussing.

"He stopped yelling. He knew it was no use trying to compete with the injector when it came to making a noise.

"As soon as he was sure they were really

leaving the station, he knew that running wouldn't do. He was just ahead of the front driving axle, with the eccentric blades bobbing up and down on both sides and the links just in front.

"Everything around him was moving more or less fast and would soon be moving faster. Ahead, the saddle came down so low that he didn't try to dodge under it to reach the front truck, where he could have managed to ride fairly well.



"IT CERTAINLY WAS AN ASH-HOE."

what was more, there hadn't been any oiling round done—so the engineer had not seen him under the engine!

"Suffering cattle-guards!' thinks Dick to himself, 'the old man don't know a thing about me being down here, and I'll bet a chunk of coal against a wad of molasses he's pulling out!'

"Up in the cab, Lawton finished putting in a fire and rubbered back at the train, but there was no Dick in sight.

"The engine kept traveling faster and faster until one of Dick's feet slipped on a snow-covered tie and down he went, expecting to be—well, you know what he'd look like after the engine and twenty or thirty cars got through with him.

"As he fell he made a grab at things in general, and nothing in particular, and one of his hands closed on an electric-blade.

"The thing was heaving up and down, of course, and likewise, it was cold, but Dick hung on like grim death. To let go meant grim death for him, and well he knew it.

"He was dragging right under the driving axle and, reaching up, he got his other arm over it from behind. It was smooth and greasy, and, as the motion was pulling his arm to it, it served as a support almost as well as if it had been standing still, instead of revolving.

"Next, he let go of the blade and grabbed the top edge of a driving-box. He says he don't just know what he did do then, but the next he remembers he was standing on top of the front damper, his back pressed against the jacket of the boiler and his hands resting on the frame on each side."

"But, Bill, there is not enough room for a man to get in between the driving axle and the fire-box, as you describe!" remarked the engineer.

"Huh! You just go look at that engine! She's one of the old tubs with a short fire-box and there's plenty of room. It's wonderful what some of you 'high brows' know.

"The snow was beginning to be drawn up by suction, and it beat in his face till he was almost blinded. The raw iron and snow was making his hands numb, too, and just to help things along and make it nice and homelike, the damper teetered up and down like it would give way any second and dump him off on the ties that was slipping under him like a streak.

"Below, he could see the handle of the ash-hoe sticking out of the pan. On both sides, just over the drivers, was a small opening, and Dick figured that if he could only draw the hoe from the pan he might be able to shove it out on the engineer's side, where Lawton would be certain to see it and be moved to investigate.

"He rubbed at the hoe as well as he could for the snow, wondering if he could reach it.

"Well,' thinks he, 'if I fall it'll be a case of private funeral and no flowers; but it'll be the same thing a few minutes later anyhow, for I sure can't roost up here much longer, so here goes!'

"Up in the cab, Lawton was dividing his time between running the engine, firing, and cussing the injector.

"That fixed him up so that he felt right chipper, and he climbed up on the seat-box and stuck his head out of the window, only to jerk it in again as though it was fastened to a rubber band.

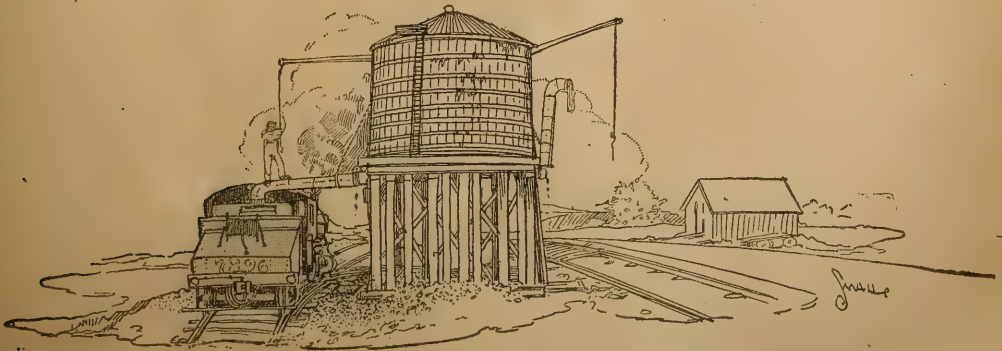
"There, sticking out over the drivers and waving around in the air, was an ash-hoe.

"There was no doubt about it. It certainly was an ash-hoe.

"What the ——!' he yelled! 'Great horned toad—the fireman!'

"Once he caught the idea, Lawton wasn't long getting a move on him. He swung the air to emergency, and climbed out of the front window onto the running board. Kneeling down and leaning out he could look under the engine, and pretty soon he made out Dick's form through the haze of snow. He yelled to Dick to hold on for just a minute longer, and climbed back into the cab and whistled the fireman back.

"The brake-shoes hadn't hardly got done squealing before he was down on the ground. Just as she came to a stop, Dick tumbled to the ties in a heap unhurt—but happy."





THE GORGE.

BY FLORENCE JOHNS.

Written for "The Railroad Man's Magazine."

OH, narrower grows the pass—
The air is damp and chill;
Oh, whence comes that surging mass
That causes the stream to fill?

But, hark to the sound that I hear!
The thundering sound that is pealed!
It comes from afar and yet near,
For soon is the wonder revealed.

And narrower grows the path!
More noisy the waters sweep!
With fury and foaming wrath,
They make their desperate leap!

'Tis naught but a slender ledge,
That borders the rushing tide,
And the road seems just like a pledge,
To stay by the river's side.

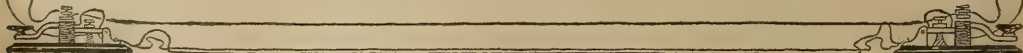
The narrowing road leads straight,
And the waters keep up their chant,
Ever louder the dashing freight
Continues to mumble and pant.

Till the path and stream form a wedge
'Twixt walls of gigantic size,
And plunging within this hedge,
The waters continue their cries.

And the plunging, crashing freight,
Vistaed between the rocks,
Seems like an added weight
To the guarding sentinel locks.

And the waters continue their play.
Are they seeking their liberty?
Or, is the freedom a fray,
As they're forced to the far-off sea?

And down they splash and they dash,
They churn and they foam and spray,
They drop like a gleaming flash,
And, unfettered, pursue their way.



To Transit Improvements in the City of New York—\$6,000,000.000.

BY E. L. BACON.

EFFICIENT transportation facilities for New York City, whose subways and street railroads last year alone carried as many passengers as there are people in the world, have long been the despair of railroad presidents and boards of directors of the lines which terminate in Manhattan. Even when engineers came forward to solve the difficulty, the enormous expense entailed made them hold back until the pressure of rapidly increasing traffic left no other course open. Now that the purse-strings have finally been loosened, there seems to be no limit to the golden flood that is pouring forth.

Bigger and better is the watchword, and of the billions of dollars to be spent for transit improvements a large part has already been consumed. It is a sum of money almost too great for the comprehension of the average human being, and yet the rate at which present traffic conditions are growing points to the fact that it will probably have to be duplicated within a generation.

The Gigantic Sums that Will Be Paid Out in the Near Future by the Municipality of the American Metropolis for Street-Railway Improvements Almost Dazzle Comprehension.



ASTRANGE, cosmopolitan army of workers, such as had never been brought together before, began to scatter to the four corners of the earth when the Pennsylvania's tunnels connecting New Jersey, Manhattan, and Long Island were completed.

Up from the wonderful subterranean highways of commerce they had built, blinking in the unaccustomed light of day, came Austrians who had got their training in the construction of the great Simplon Tunnel through the Alps, hundreds of negroes, Poles, Germans, Russians, Englishmen, Americans.

Among them were engineers and foremen who had built tunnels in Egypt, in South Africa, in the Andes—men who had wrestled successfully with great problems of construction in Nature's mightiest fastnesses in many a remote region, whose conquests had

set the world to marveling over the wonders of modern enterprise and ingenuity.

"Now that the job is finished what do you expect to do next?" inquired George Carey, one of the older engineers, of Bill Ferguson, a younger member of his profession who had been working with him in the tubes for eight strenuous years.

"Get a harder one," replied Ferguson.

Carey rubbed his grizzled beard for a moment and smiled sadly. He was a man who had been through many a big feat of engineering.

"Young man," he said, "you won't find any harder job than this in your generation. The biggest thing has been done. All this work that is going on now of rebuilding New York as a traffic center beats anything the world has ever dreamed of and anything of the kind that will be seen in my lifetime or in yours.

"These are the times that you will look

back to and will talk about when you are old. You've got a breathing space now to stop and realize how much in our line is going on in this city, and when you've done so you'll agree with me."

Any one else who stops to realize the same thing will agree probably that the old engineer was right. Other great terminal improvements will be planned and built, but it is hard to believe that this generation of workers will again be engaged in such a colossal scheme of traffic construction as is to be completed within the next five years—the rehabilitation of New York's transit service, the first and greatest chapter of which, the extension of the Pennsylvania's roads into Manhattan Island, is now drawing to a close.

Where the Money Goes.

Big figures are not as impressive in these days as formerly. When one is confronted by them on every hand, they lose their significance. The public's sense of proportion becomes warped. Instead of showing immediate astonishment, one has to stop to consider whether the expenditure of a few millions means very much after all in comparison with other big things that are being done.

But we haven't begun to talk about billions yet, there being no billionaires, no billion-dollar buildings, no billion-dollar construction works of any kind, and the spending of even half a billion is enough to make the world open its eyes and take notice.

That is what the remaking of New York as a traffic center is going to cost—a half billion dollars! Perhaps it will even cost another hundred millions. This is the price of solving the knottiest traffic problem that has ever been presented, or probably that ever will be, within the lifetime of any one that lives to-day.

It is the penalty of having established the metropolis of the Western world upon a long and narrow little island banded by broad and deep rivers.

Just a few figures. They will give a more detailed idea of what a huge piece of work this rehabilitation of the New York traffic center is:

Bringing the Pennsylvania Railroad into Manhattan Island and linking it with Long Island and New England, \$159,000,000.

Reconstructing the New York Central Railroad's terminal on Manhattan Island, \$70,000,000.

City subways now being constructed or already decided upon by the Public Service Commission, \$130,000,000.

Piers which the present city administration expects to build, \$42,000,000.

These figures make a total of \$501,000,000.

They do not tell the whole story. Another item is the extension of the Hudson and Manhattan Railroad Company's tunnel, the additional line to run from Thirty-Third Street and Sixth Avenue under Sixth Avenue to Fortieth Street, and under Bryant Park to Forty-Second Street and the Grand Central Station.

But there is still another huge improvement yet to be mentioned—the building of a harbor in Jamaica Bay and the cutting of a canal connection from there to Flushing Bay. If this project should be carried out it would bring the total much nearer to \$600,000,000 than to half a billion.

Just how much it would cost, nobody knows. The estimates run as high as \$70,000,000. Perhaps the project will never be carried out, but the city has already agreed to spend \$1,000,000 for preliminary work in case the national government appropriates \$250,000 for the same purpose.

A President's Problem.

There is a pathetic chapter in the story of the remaking of America's greatest terminal point. A commanding figure in the railroad world a few years ago—perhaps the most commanding at that time—was A. J. Cassatt, president of the Pennsylvania Railroad. He was a commanding figure physically as well as by reason of his ability—a giant of a man more than six feet two inches in height, broad of shoulder, straight as a soldier.

It was in the brain of this man, who saw farther into the future than most, that the first great step in the work now under way of making the world's most marvelous traffic terminal was conceived. It was his bold plan that stirred his road's great rival, the New York Central, into mapping out its own huge terminal improvement.

The Solution.

He found the way. Quickly there began to develop the whole tremendous plan. To the directors of this company he presented, in confirmation of his judgment, a table of population statistics, a map of New York

City and adjacent territory, and a brief computation of figures.

He took a compass and fixed the radius to a distance that would scale nineteen miles. He placed the pin of the compass at Thirty-Third Street and Seventh Avenue, New York, and swept its arm in a circle.

He showed that within this area there would be by normal growth six million persons in the year 1913, and eight millions in 1920. He asked the directors if they expected to continue to depend upon ferry-boats to pierce the center of this great human hive.

His plan extended even farther than getting into Manhattan Island. He looked forward not only to tunneling the Hudson, but to getting possession of the Long Island Railroad and of tunneling a connection to it under Manhattan Island and the East River. His eyes were upon New England, and the Long Island road could be used as a link toward getting into the rich territory of which the New Haven system had a practical monopoly.

In 1900 the Pennsylvania gobbled up the Long Island, and a part of his plan was realized.

The Finished Product.

Then the breath of scandal swept over dozens of big corporations—the Pennsylvania Railroad among them. Cassatt, wounded by harsh criticism, died of a broken heart, his genius overlooked and unappreciated.

Other men rushed his plans to completion, and to-day they have been carried out to the letter. At Thirty-Third Street and Seventh Avenue, New York, a terminal station covering twenty-eight acres, one of the architectural wonders of the world, on which the finishing touches are now being put, stands as a monument to his genius.

From Bergen Hill, in New Jersey, to this station, and there on under Manhattan Island and the East River to Long Island, stretch tunnels big enough for the road's through vestibuled trains. In the river tubes are six and eight-tenths miles of single track, and in the land tubes tracks of just the same length. At the Manhattan Station there will be an initial service of 400 trains a day on the Pennsylvania and 600 trains a day on the Long Island, all coming and going under the two broad rivers.

One of the most interesting parts of the whole scheme, the New York Connecting

Railroad, will cost \$14,000,000. This road will link the Pennsylvania and Long Island systems to the railroads of New England. It will be built upon a bridge from Long Island City by way of Ward's and Randall's Islands to Port Morris, a station on the New Haven road. From Long Island City the road will run to Bay Ridge, from which freight will be floated across the bay to the freight terminal at Greenville, New Jersey.

Underground Travel.

The new Grand Central Station is to be the center of a network of travel routes. Already the original Subway is one of its arteries, as well as the Third Avenue Elevated and several surface lines. Soon there will be two new subways tapping it.

The Hudson and Manhattan tube under the Hudson is to be extended to it from its present Thirty-Third Street terminal. Then the proposed Broadway and Lexington Avenue tunnel will reach it on the Lexington Avenue side. Before long the unused Steinway tube under the East River at Forty-Second Street will probably be put into service, and will be still another of the Grand Central's arteries.

The problem of getting the people through the crowded city is as great as the one the steam railroads have faced of getting them in and out. There is not another city in the world that presents anything like as serious a problem, not only because of New York's size and rapid growth, but because of its peculiar geographical characteristics.

A glance at some of the amazing transportation figures gives an idea of the hugeness of the task of providing adequate transit facilities. In 1909 the Subway and street railroads of the city carried over 1,409,000,000—almost as great as the population of the earth.

In that year they carried 44,000,000 more passengers than in 1908, and the bulk of this increase was on routes where there was no increase of facilities.

The Growth of Traffic.

To carry this great multitude there are 1,646 miles of single track, 11,623 passenger-cars, and the cost of operating these lines in 1909 was over \$44,000,000. During that year the cars ran more than 272,000,000 miles, which would be equal to more than 560 round-trips between the earth and the moon.

How fast the problem grows is strikingly set forth by some figures from the Subway.

The Subway was designed to carry 400,000 passengers a day. During the first two months of its operation it carried 249 passengers a day. That was almost six years ago. In 1909 it was carrying 800,000 people daily—just double the number it was designed to carry!

If no important additions were made to the city's transit service within the next ten years, it would be impossible to handle the rush-hour crowds by the year 1920.

But the city will not have to wait ten years for relief. While there are now less than thirty-two miles of tunnel routes, there will be almost ninety miles more in operation within five years, without counting the through railroad tubes of the Pennsylvania and the New York Central.

Foremost in the new subway system that is about to be begun will be the Broadway and Lexington Avenue lines. This route will consist of a trunk line up and down Manhattan Island, with two branches in the Bronx. It will be over twenty-two miles and will cost \$70,000,000. Its capacity will be a million passengers a day, or two and a half times the capacity of the original Subway.

Over \$7,000,000 will be spent on a cross-town subway running a mile from river to river under Canal Street. Another subway to be run from the Brooklyn end of the Williamsburg Bridge to connect with the Fourth Avenue Subway, will cost \$15,000,000.

New Subways.

Already \$16,000,000 is being spent to build the Fourth Avenue Subway in Brooklyn, running from the Brooklyn end of the new Manhattan Bridge to Forty-Third Street, a distance of four miles. Two great extensions of this road are to be built. One will run from the Forty-Third Street terminal to Coney Island, the other from the same point to Fort Hamilton, from which place a tunnel will eventually be built under the Narrows to Staten Island. These two extensions together will measure nine miles in length, without counting the eventual extension to Staten Island.

Still another subway, which is now almost completed, runs from the Manhattan end of the Williamsburg Bridge through Delancey Street to the junction of Centre Street and Park Row, a distance of almost two miles.

Truly, it should be a wonderfully changed city in respect to its transit service five years from now with this great maze of subterranean roads.

Then there is the great problem of handling the commerce of the seas. The teeming city hasn't room for all its ships. Former Comptroller Metz declares that the wheat-shipping terminal of the continent is now Montreal, and that New York has lost this great traffic because of the crowded condition of its port and the expense of its docking facilities.

The demands of the ships are becoming more and more urgent. Every year shows a striking increase in the city's sea traffic. In respect to the number of net registered tons of shipping entered in the foreign trade, New York has just become the greatest port in the world.

A Giant Canal.

It has long been ahead of London and Hamburg, and recently it passed its nearest rival, Liverpool. In 1909 there were 10,959 shipping arrivals at New York, and the value of the goods entered in foreign commerce at the port was \$1,311,000.

Mayor Gaynor, who is responsible for the carrying out of this tremendous project, has the best interests of the city of New York more fully developed than had any other mayor.

Here is a man whose every act since his election to the greatest municipal office in the United States is proving that he is destined to become one of the foremost figures in American politics. A keen observer, a talented lawyer, a judge to whom mercy and human kindness are factors of the law, he is looming large on the horizon of 1912 as a possibility for the Presidency of the United States. Such a man is surely big enough to handle the ever-growing transit problems of the biggest city on the American continent.

The present administration hopes to spend \$42,000,000 for new piers. Twelve millions of this amount will be spent for acquiring water-front property, and another million will be set aside for preliminary work on the Jamaica Bay improvement in case the bill which is now before Congress providing for an appropriation for that project should be passed.

It is proposed that this new harbor be made the terminal of the barge canal, which now, at a cost of over \$100,000,000, is being dug across the State of New York to connect the Hudson with the Great Lakes. To make a more direct connection with the Hudson and the barge route, there is a plan for digging a canal across Long Island from Jamaica Bay to Flushing Bay.

Saying "Good-By" on the 8.

BY JOHN WALTERS.

THE TRUE STORY SERIES. When you just have to hang on, boys, and let her run; when it's useless to jump—simply a question of being dashed to eternity against the rugged rocks of a cut or ground to death when she collides—then you begin to think, and think hard. And, usually, there's only one thing to do, and that is to stay.

And we don't much blame Hawkens if he used words that could only be printed on asbestos when he reached the end of his exciting journey. It was something to be alive to tell the tale.

An Occurrence in the Early Days of the Oregon Short Line When an Eagle-Eye and His Mate Thought that It Was All Over Except the Floral Tributes.

TRUE STORY, NUMBER FORTY-SEVEN.



COME on, now! Get a move on! 'Tain't no use kickin', for you got to go, an' that's all there is to it!"

This was spoken by a wiper, transformed for the moment into call-boy, after imparting the unwelcome information that my valuable services were in demand for a trip West, starting at 9 P.M.

It was back in November, 1883, at Shoshone, Idaho, on the Oregon Short Line, then in course of construction, the track having been completed a considerable distance beyond the above-named city.

I was firing the engine which hauled material to the track-laying crew at the "front," and ours was the only train operating west of Shoshone at that time, except the one at the "front" which came no farther east than King's Hill station.

Over the track between Shoshone and King's Hill station we therefore held undisputed sway, and might come and go at will as duty called.

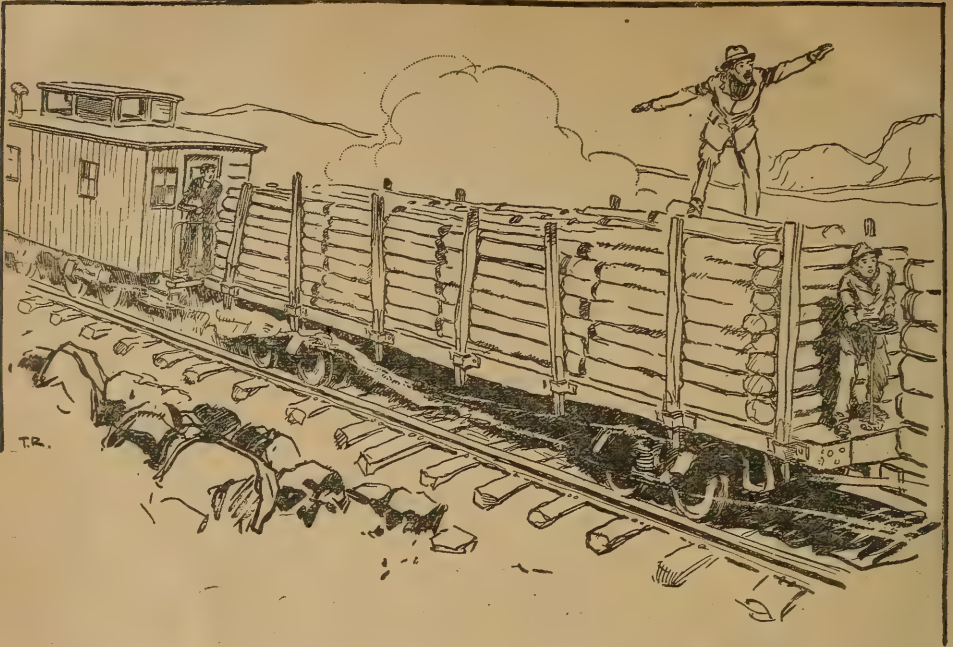
The unexpected call was not at all to my liking, as most of our work was during the daytime. We had been ordered out—and that settled it.

It developed that we were to proceed to Reverse with caboose only, and there pick up a train of loads. These we were ordered to take to King's Hill, nine miles beyond, after which we might return at will, no train-orders being necessary to govern our movements.

Between Reverse and King's Hill stations there was a drop of nearly nine hundred feet, or ninety-eight feet to the mile for the entire distance. In those days we had no air on the freight-engines or cars, and, it

EDITOR'S NOTE: All the stories published in this TRUE STORY SERIES have been carefully verified by application to officers or employees of the roads or companies concerned who are in a position to be acquainted with the facts. Contributors should give us the names of responsible persons to whom we may apply for such verification, in order that fruitless inquiries may be avoided. This condition does not imply any lack of confidence in the veracity of our contributors, but is imposed merely to give greater weight and authenticity to the stories.

Series began in the October, 1906, Railroad Man's Magazine. Single Copies, 10 cents.



DROPPING TRAINS DOWN SUCH A GRADE WITH HAND-BRAKES WAS A TICKLISH BUSINESS.

might be added, that in the chaotic conditions incident to track-laying over the desert, engines were in luck to have much of anything else on them. Frequently we ran out of oil, and were obliged to use melted lard as a lubricant.

Dropping trains down such a grade with hand-brakes was a ticklish business—nine or ten miles an hour being the limit of speed.

In due time we reached Reverse and made a flying switch of the caboose to the rear end of the train standing ready on the siding. Coupling the engine to the other end, we waited until the trainmen finished examining the brakes and couplings.

The steel rails used were thirty feet in length, and, as the train stood, there were ten cars of steel next the engine, with fifteen cars of ties behind. Frequently these rails were loaded on thirty-foot flats. When this was done the loaders would usually remove the brake-staff, laying it on top of the load, and it frequently would roll off and be lost.

When cars with missing brake-staffs were found on a train, our crew would set them out at Reverse to await the arrival of a car-repairer to supply the deficiency. Naturally, when our crew found all brake-staffs in place and the brake-shoes in good condition, they assumed that all was "O. K." and gave us the signal to pull out.

We learned that there had been a whole-

sale theft of brake-chains in the Shoshone yards. The cars from which they had been stolen were set out by our own crew, their condition being discovered between Shoshone and Reverse; but they had forgotten it. In fact, there was not a single brake with a chain on the entire train, except the caboose and engine tank-brakes.

Through some one's blunder, the deficiency had been reported to the office in Shoshone as having been remedied and, there being shortage of material at the "front," we were ordered to take them down the hill.

For about two train-lengths from the switch the track was level and there was no necessity for brakes until we pitched over the top of the hill.

Hawkins, the engineer, and I promptly coiled up on our respective seat-boxes as soon as the engine started down the grade. The handling of the train was wholly in the hands of the crew until King's Hill station was reached. But our rest was brief. Suddenly we realized that we were running considerably faster than the King's Hill speed limit.

The track had not received its final surfacing, and was still rough. Looking back, we saw the brakemen running toward each other near the center of the train, stopping at the end of each car to twirl its brake-wheel, and then speed on. On top of the

caboose stood the conductor frantically swinging his lantern to stop.

The brakemen met and, facing the engine, added their signals to those of their chief, swinging their lamps so fast that one was extinguished. We couldn't stop. Were the train standing still the engine could not have held the cars. She was only a ten-wheeler, carrying 140 pounds pressure.

After a few violent oscillations of their lamps, the brakemen turned and ran for the caboose, climbing over the cars of ties like monkeys. Suddenly it dropped back from the train.

They had cut the way-car off and left us to our fate.

Until the caboose dropped back we had done nothing. In fact, there was very nearly nothing to be done. But now we awoke to action.

"What is wrong back there?" shouted Hawkens.

"Give it up, but I'll soon find out," and in an instant I had climbed over the tank to the first car. The brake-wheel twirled in my hands, and a glance disclosed the fact that it had no chain. I raced back four cars, to find each brake in the same condition. The train was making forty miles an hour, and the heavy steel rails began to grind and shift as the cars swung over the uneven track.

Plainly it was up to me to sprint for the engine.

"Well?" was Hawkens's greeting; and I explained briefly.

"Great Heavens!" he cried, "and Chris Long holds the main line at King's Hill."

Chris Long was conductor of the track-laying train, which was then tied up nights at King's Hill station. Hawkens's exclamation meant that if we reached the station by any miracle we would plunge into the waiting train. With our speed, the result could be easily imagined.

Jumping was out of the question. We would have landed in the rock cuts, and the dumps between were strewn with great, jagged stones blasted from the cuts.

We were now running fully a mile a minute, and the speed increasing every second. The

crash of the steel, as it bounced up and down, could be heard above the roar of the train, and the ties were beginning to fall from the rear cars, bounding high in the air as they struck.

The engine rolled and pitched fearfully, while behind hung a cloud of dust kicked up by the speeding cars.

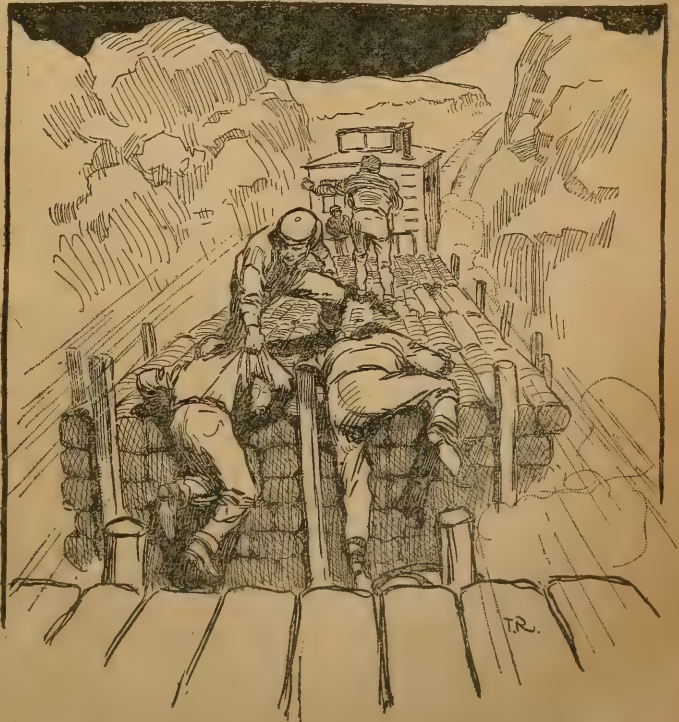
Hawkens reached over and grasped my hand. "Good-by, Frank! It's all over with us," he said.

I can see Hawkens to this day. Calm and cool—not even the least bit excited. He was one of those men who do not seem to know what the word fear means.

But I did. If there was ever an individual scared plumb stiff—scared thoroughly and completely through and through—I was that identical one.

Hawkens cut a section from the bell-cord, and tied the whistle lever down so that it would blow continuously. The crew at King's Hill station might hear it and, guessing what was wrong, get their train off the main line, thus giving us a clear track—if by any chance we reached the station. It seemed that nothing short of a miracle would keep us on the rails that far.

The old 8 plunged and rolled fearfully, but she clung to the track as though she



THEY HAD CUT OFF THE WAY-CAR AND LEFT US TO OUR FATE.

knew a wreck meant utter annihilation. Her drivers, as I leaned from the cab-window and looked down, appeared like solid disks of iron, and her rods flashed up and down at lightning speed.

Suddenly there was a crash and a lurch which seemed to lift the engine bodily from the rails. I felt each individual hair raise straight up from my scalp. I am sure that

Hawkins said nothing after bidding me good-by. All that we could do was to await the end; and I can tell you, boys, awaiting the Grim Reaper is one of the most soul-trying things ever experienced by mortal man.

It seemed but a matter of seconds after the engine threw her rods when the slight curve just east of the station came into view. Here, indeed, was the end!

With closed eyes and stiffened body, I prepared myself. On and on she plunged! One moment more and—

I felt the engine round the curve, and there was a terrific crash.

My eyes opened to find the train plunging along over the level desert, with the station far to the rear.

It took several moments to realize the fact that we had actually passed through so horrible an experience without harm.

Our train ran far beyond the station, and when it was stopped finally by a slight up-grade, the old 8 was a sad wreck.

Her rods gone, guides and yoke bent and every box on her blazing, she certainly was a sight!

The track-laying engine came out and pulled us back to the station. The watchman had heard the roar of our train and the scream of our whistle. Guessing what was wrong, as Hawkins had hoped he might, he hastily, and just in time, pulled in on the siding.

A rail fell from our head car and utterly demolished the box-car depot, though luckily there was no one in it at the time. That was the crash I had heard.

In due time our crew arrived, having dropped the caboose slowly down the hill. What Hawkins said to them could only be printed on asbestos. It would set fire to any other material.

As for me, I've ridden pretty fast, both before and since that time. But never did I slip through a bunch of landscape quite so quickly as on that occasion.

They say that when a man knows it's only a question of a few seconds until death swoops down on him and sends him into the great unknown, that all the events of his past life go flitting by in a regular moving-picture dream; but, strange to say, all I could think of at the time was what sort of a place I was going to light on when we struck *terra firma*.



"GOOD-BY, FRANK! IT IS ALL OVER WITH US."

I bit a chunk off the northwest corner of my heart.

I sure thought it was the end, and said the first line of "Now I lay me"—all I could remember under the stress of circumstances—but she ran more smoothly.

The speed was too great a strain, and the 8 had stripped herself—wrenched off the driving-pins to which are attached the side rods connecting the drivers.

Luckily, neither rod struck the cab, and the straps broke, releasing them instantly.

Up to this time the internal friction of the engine's machinery had acted as a powerful brake, but how she did run!

The landscape flashed by in a gray streak, and, with every lurch, an occasional rail would bounce from a car, hurling a shower of sparks as it struck a rock and then swirl high in the air.

New Mallet 2-6-6-2 Type.

THE Chicago, Burlington, and Quincy Railroad has received ten Mallet compounds of the 2-6-6-2 type from the Baldwin Locomotive Works. They are equipped with an Emerson fire-tube superheater, a feed-water heater having a heating surface of 2,172 square feet, and a reheater consisting of 19 2-inch tubes, 128½ inches long, located in a large 17-inch flue through the center of the feed-water heater. These locomotives are arranged to burn lignite, and will be used in freight service on maximum grades of 1.6 per cent. They are designed to traverse 20-degree curves.

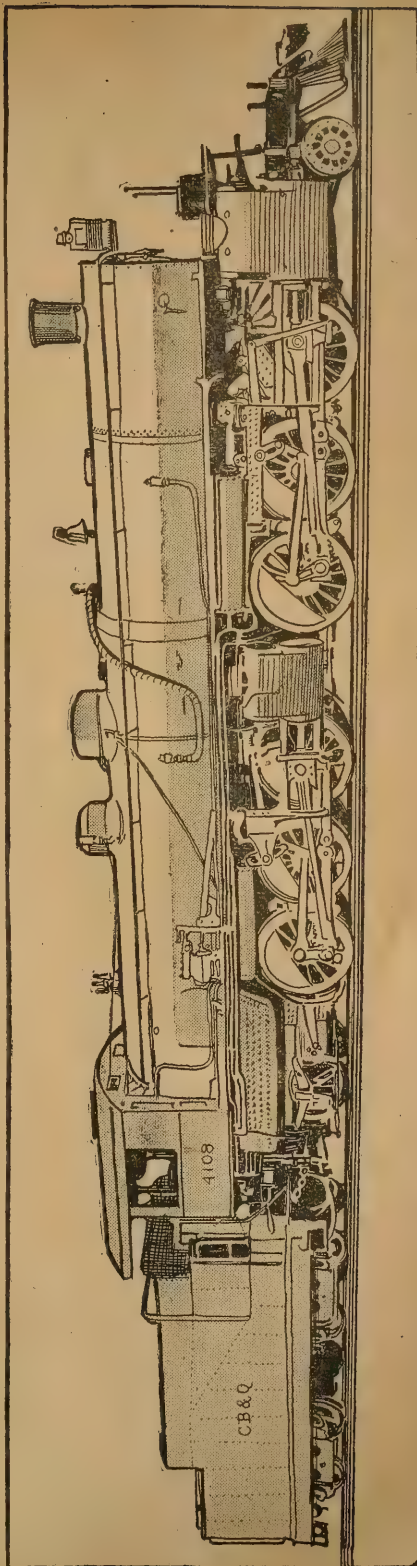
Steam from the throttle-valve, says the *American Engineer and Railroad Journal*, is carried through the usual dry pipe to the front flue-sheet, where it passes through the T-head into the two superheater headers. This type of superheater has vertical headers, which are simply enlarged steam-pipes with the proper walls and passages to divide the saturated and superheated steam sections. Each superheater has fourteen elements placed in two vertical rows of seven each.

The headers have a cross connection at the bottom to act as an equalizer between the superheated steam compartments.

The high-pressure cylinders are cast separately from the saddle, and the steam from the superheater passes into a short passage in the saddle, from which it is carried by a short elbow-pipe to a passage in the center of the cylinders, thence to the 13-inch valve-chamber. The exhaust emerges from the high-pressure cylinders through a 6-inch passage on the back face, from which it is carried to a passage in the saddle by a short section of piping, and thence upward from the center of the saddle through an elbow-pipe to the reheater. The reheater consists of two cast-steel headers circular in shape, between which there are 19 2-inch tubes 128½ inches in length.

These headers have ground ball joints with the elbow-pipes at either end. The discharge from the reheater is carried down to the bottom of the smoke-box and thence through a flexible receiver-pipe to a steel casting which forms part of the front frames, and to which the low-pressure cylinders are bolted.

The feed-water heater is of unusual capacity, and in addition to the large central 17-inch flue has 406 2¼-inch flues distributed over its whole cross-section. It is fed by two non-lifting injectors, the admission being on the center line at either side, and discharge through a check-valve at the top into the check-valves on the side of the boiler proper. The front section of the boiler is separable from the rear section, the joint being just back of the feed-water heater, and all piping or other parts continuing by this joint are arranged so as to be easily disconnected.



MALLET ARTICULATED COMPOUND LOCOMOTIVE, BUILT BY THE BALDWIN LOCOMOTIVE WORKS FOR THE CHICAGO, BURLINGTON AND QUINCY RAILROAD. IT IS BUILT TO BURN LIGNITE, AND IS EQUIPPED WITH A HIGH-DEGREE SUPERHEATER AND REHEATER AND A VERY LARGE CAPACITY FEED-WATER HEATER. THE TOTAL WEIGHT IS 361,350 POUNDS. IT HAS 64-INCH WHEELS.

THE LAW AND THE FACTS.

BY J. R. STAFFORD.

Fearing a Slow Order from the Despatcher, Wright Runs the Gantlet of Misery.

MIND, you must take no chances, Wright!" The despatcher spoke sharply.

The engineer nodded, and then sidled out of the room and into the darkness of the train-sheds. He hid himself, too; for he was afraid the despatcher would send him a "slow order."

A slow order annuls the schedule. It is given on the theory that a train can crawl, where, under speed, it would take the ditch. Wright wanted no slow order. For this trip this particular night was "extra"—pulling the fast mail.

It was foggy, the rails would be slippery, and the red and the green, like the white, signal-lamps would all shine mistily gray. If, as extra, he could maintain schedule speed he would achieve a great triumph, and inevitably promotion to the regular mail run would be his.

A slow order would shatter the opportunity which was calling to this ambitious man with all the eloquence of all his struggling past.

For fifteen minutes he stood in the shadow of the sheds. Then, when there was not another second to spare, he bounded across the lighted space beyond which the already coupled and waiting mail loomed high and dimly lit. As he looked back from his window in the cab a lantern far in the rear swung straight upward and then sharply down.

Now, just as he put his hand on the little lever of the air-valve, it happened that Miller, regular mail-driver for this very run, came along. Standing just beneath the cab, he stared up at its occupant with the peculiarly sneering smile which says, "You will try, but you will fail."

The smile angered Wright unaccountably. But this anger was nothing to that which he felt a moment later; for, somehow, while

fumbling with the air-valve, he did not notice that the brake was off, wherefore he gave the lever a very sharp jerk—just as a very angry man will jerk a horse sometimes.

The result was that the brakes went on again. Only that it was now on the very dot of leaving-time, and the throttle not yet opened, he would have jumped down and he would have fought.

Miller now laughed openly.

Since there was promotion ahead, or at least the very good chance of it, the engineer satisfied his lust for vengeance in the thought that promotion would put Miller out of the mail class. He had another reason for rushing the mail on schedule; so he started off as if nothing had happened.

As he pounded out through the corduroy of frogs to the yard limits he would have been happy but for one fact. His fireman was a younger brother to the master mechanic.

It was quite possible that the young man might, on returning to his brother, tell of the confusion in the handling of the brakes. This story possibly might halt the matter of promotion.

After thinking it over for twenty minutes, Wright got a wrench from the tool-box, and after showily pretending to make an adjustment, he explained to the coal-passer: "The bushing around the valve-stem had slipped a little. It let the handle turn too easily."

The fireman nodded that he understood.

Then the engineer crawled back up into his window, and he drove like a jehu of old. His brain was cool as the snows on the summit of Vesuvius; his heart and its purposes as hot as the fires that seethe below.

Time that he lost on the up-grades because of the skip of the wet drivers he made up on the down-grades by sanding, and then, regardless of curves or trestles, by giving his pistons every ounce of steam.

Under him that engine was his own wild heart that night; a rage, a madness to whirl past clutching accident and to win mightily.

Death, which is the terror of little men, he had flung out of his account.

As a consequence, he came in on time at the first stop—sixty miles out—and there he found congratulations from the despatcher and orders to proceed on schedule.

Station after station whipped by like fleeting things of waking dreams. The fog and the wet night rushed backward as swiftly as Time himself.

Morning came at length. When they were within twenty miles of the end of the run, and were on the schedule to a watch-tick, hurling forward through the gray at seventy miles an hour, a vagrant wind lifted the fog ahead, disclosing, far away, a team and wagon stopped upon the track.

There was no need of taking any chance. Wright jerked his whistle-cord and softly applied the air.

To his surprise, the valve-handle moved over easily, though without effect, upon the brakes. He pushed the handle clear to its bracket. The air was dead.

Then the wind died and the fog fell, hiding the disconcert ahead.

Just at that moment the fireman looked up from his poised shovel and yelled: "Out of commission again?"

Wright knew it was a question about the brakes—and he also knew that if he answered truthfully he must stop at the next siding and report the trouble, or else go on in open violation of an important section of the book of rules.

Secretly, he was willing to violate all sections in order to save this run, which would prove him beyond quibble a great engineer. So he nodded in the negative, and shouted that there was nothing the matter.

He was certain the fireman had not seen the handle against the bracket. He would wait until they had passed the last siding in; then he would pretend he had just discovered the failure of the brakes.

So, when they were within five miles of the switch-tower, which rose like a skeleton of wan lanterns in the morning grayness, he suddenly put his head around into the gangway and shouted, "The air is dead!"

It is not a pleasant thing to be riding at seventy miles an hour without any brakes, especially when one is but four minutes away from a gridiron covered with flying switch-engines and trailing strings of cars.

The fireman uttered a mad oath about en-

gineers who couldn't tell when the brakes were in trouble, and then he fell to dancing to the wild hornpipe which fear was playing for his benefit.

Wright laughed, and, throttling down, was soon running under momentum alone. By the time they were at the whistling-post he was using a little steam again just to keep moving. He stopped on the yard limits, whistled, and then trundled slowly down to the red flag, where a hostler from the round-house waited for the engine. As he got down from the cab, he said to this man: "This air's dead. It happened just a few miles back."

Then the fireman got down, and, with genuine approval, he said: "Wright, it was a great run. If ever any man ought to be marked up, you certainly should be."

Wright felt very good over this. He was sure of his fireman. Nothing now could bar his promotion.

Up at headquarters, where he hurried to check in, half a dozen officials were waiting to congratulate him. They looked at the chalky white dulness which settles under the eyes of a man who endures a long and tremendous strain, and they pretended that he had been scared half to death all the way. They conducted themselves generally like men who are very proud to patronize. Wright was not overfond of this business. As soon as he could do it decently, he got away.

That afternoon, instead of waiting for a run back, as he had a right to, he got leave and went home on the first passenger-train. He wanted to tell his wife and babies all about what had happened, for their approval was the kind he could accept. Besides, the higher pay of the better job now certain would open long vistas of better things for them. He wanted them to know at once.

It was long after midnight when he let himself into the flat; but, just the same, the boy and the girl woke up with their mother, and all three of them got out of their beds and made him tell the story of the run again and again, until he was quite sure that he was not only a very great man, but the happiest one in all the town.

Of the foolish things he did the next morning, as soon as he could find shopkeepers astir, it is as well to say little. He bought all the books that his son would never read, all the trinkets for which his wife had not the slightest use or wish, and all the unimaginably meaningless gimcracks for which his little girl could find neither name nor purpose.

But he made them happy, anyhow; and in doing this he spent—on credit, of course—considerably more than the pay coming to him.

About ten o'clock the telephone rang for him to answer a call from headquarters. He was wanted at once. As this meant his promotion, he hurried across the city, in all a schoolboy's elation, to the despatcher's office.

As he entered the clerks smiled curiously at him, and pointed silently to the door behind which he knew the higher powers were wont to sit in state and put ordinary mortals "on the carpet."

Now, as he was about to enter on a piece of business very rare in the experience of engineers, he felt very proud. He held his head high. It is to be feared that he held himself just a trifle too straight. But then, of course, he did have a right to feel a bit chesty.

On entering the *sanctum sanctorum* he was somewhat surprised to see several persons who were not usually to be found there.

In the first place, besides the despatcher and the superintendent and the master mechanic, there was Miller. What business could Miller have?

The question bothered him not a little. Now that he remembered it, he had a grudge against this engineer for that sneering smile. Perhaps Miller was to be reduced to the ranks.

Then he wondered about his fireman, who was also in the room; but, reflecting that this man had a share in the run, he was glad they were going to honor him also. He decided that the very large and severe gentleman who looked at every one just as a good machinist looks at bolts and nuts must be the general manager.

The despatcher nodded gravely at him, but no one else made a sign of recognition.

This did not seem the proper beginning of a ceremony for promotion; but as his was an exceptional case, he thought, perhaps, that the methods might be exceptional.

"Wright," the despatcher said, "what were you doing between the time you left me night before last and leaving-time?"

Now, if the engineer had been alone with his questioner he would have answered that he had been hiding in the sheds for fear of a slow order; but, in the hearing of these other men, such an explanation seemed silly. He shifted uneasily on his feet, and answered: "Why, jist a loafin' around in the sheds. That was all."

"You are sure you were not doing a thing?" It was the superintendent who asked.

The superintendent was a stout man with a stubby nose and an air of vast importance. People grew angry at him without knowing why.

Wright answered him sharply: "I suppose I ought to know."

"But you don't suppose other people do, eh?" the master mechanic insinuated.

Wright stared from one to the other curiously. Even his show of curiosity could not hide the anxiety which this meaningless attack was heaping upon him.

"If you had not been doing anything," the master mechanic continued, "why were you so nervous when you pulled out? Were you afraid of the run?"

"Me nervous? Afraid of the run? Well, I guess not!"

"No, I suppose you were not afraid of the run," the official admitted; "but, plainly, you were nervous about something. Why did you come skulking up to your engine at just the last second, and then, after releasing the air-brakes, throw them on again, when you already had your high-ball?"

Wright hesitated. It was clear now that the fireman had come straight back and told of that awkward manipulation of the air at the start. This explained Miller's presence, also.

Deciding that it was unwise to quarrel, one against two, in the presence of superiors who weighed evidence just like other people, he simply answered: "Well, I may have been a mite nervous."

"Did you tell this man who was firing for you that the bushing around the air-valve stem had worked loose?" The question flashed from the master mechanic's lips like a shot from an ambush.

"Yes," the engineer faltered, being quite thrown off his guard, "I did, but—"

He was afraid to go on and tell the whole story. Since he had done nothing wrong, now that he found himself under some strange suspicion he half doubted his facts. The facts, somehow, seemed like to get him into farther trouble.

The general manager took a hand. Very slowly he asked: "My man, did you really throw off your air; then throw it on again; then off a second time, after you had your signal to be under way?"

"Yes, I did. You see—" But since this only required more extensive explanation, Wright hesitated. The general manager was

really a formidable personage. He was brief and direct.

"That is enough," the great man replied. The case seemed to be closed.

"Step into the other room a moment, please." The despatcher addressed the mystified engineer. "I will call you when we are ready."

Wright obeyed. Within five minutes he was recalled.

The despatcher began with grave kindness: "My man, I greatly deplore this whole matter, and I would feel, in a measure, responsible for it but for the fact that your purposed disabling of your air-brake discloses a cowardice altogether despicable. I felt that I should have given you a slow order.

"I looked round a few minutes after you stepped out of the office that night, intending to consult with you as to the propriety of a slow order. Your fear that you might have to go on without one seems, however, to have forced you to the foolishly desperate thing you did.

"Now, we have known you to be a good and faithful employee, and fairly skilful; and, while there is no proper excuse for such an act as yours, we are going to give you another chance. After a thirty-day lay off, you may report for duty. We will then do our best for you."

Wright stood petrified in his astonishment at this outlandish vagary from the lips of a sane and responsible man.

Then he began laughing; but as he laughed he saw that they exchanged most significant glances. Sudden anxiety filled him; and when he knew this showed in his face, he saw them smile as if they were now quite sure of him.

Beyond doubt it was up to him to clear away the folly of these men, so he prepared to open a discussion on broad facts.

"Gentlemen," he said, "I took the mail over the division on schedule time. I don't understand this quibblin' about the air; but it looks to me that a man could hardly run sixty mile an hour for a little over nine hours if he had lost his nerve. I'm not much on argyin' points, but I'd like to have some o' ye answer me that."

"You might not need an answer if you would admit that we know the facts," the master mechanic snapped; "but, since you don't admit them, I'll explain.

"After you fixed the air-brake, it was not immediately out of commission. It would not be, either, until the loose piece of packing

worked into the right spot in the air-pipe. Naturally, just like any other man who could do such a trick, you reasoned that it would be unwise to discover trouble until it was apparent to your fireman.

"Knowing as you did that at any moment your deliverance from schedule speed might take place through the gradual working of the clog of packing, you could drive to the very limit. You would drive to the very limit, too, because that would very likely cover your tracks."

"Say!" Wright demanded fiercely. "What sort of a frame-up is this? I'll punch somebody's head for this."

"Punch your own!" the master mechanic advised.

At this, every one laughed so heartily that Wright was constrained to believe there must be some humor in the situation.

It struck him that this was a great deal like the promotion tactics of certain secret orders to which he belonged. The notion, in view of his own undoubted facts, seemed tenable. He smiled foolishly, like a candidate who has just ridden the goat, and then, like a waiting candidate, he waited.

"My man," said the despatcher quietly, "we are now done with you. Keep straight, and report in thirty days. Drop into the office once in a while, and let us know you are alive."

"Oh," the engineer gasped with a fatuous smile, "don't I git my promotion now? Ain't you done with the foolishness?"

"Foolishness!" The despatcher stood aghast. "My man, we were never more in earnest in our lives. And as for your promotion, let me tell you, sir, that we have violated every precedent in not discharging you."

Wright turned to the door. He opened it. At last he swung it shut behind him. Still they did not call him back.

He remained in the outer office until near noon; but when the officials came out they passed by, obviously avoiding the sight of him. He went outside then and wandered in the yards for two hours, but he found no friend, nor any clue to cheer him.

At length, he came back to the office and sat down on the bench opposite the bulletin-board.

A new notice posted there caught his eye. It was his suspension for thirty days.

Now, all this was so preposterous that he determined on immediately setting things right, regardless of consequences. So, wheeling round, he pushed open the gate in the

railing and, notwithstanding the clerks, strode to the door of the private office.

Without knocking or hesitating, he opened it and stepped in.

The despatcher laid down his cigar with a smile, and said: "I told them you would break in, to own up, when you took a notion. I'm glad you came. It would have disappointed me if you hadn't come at all. It would have been very unflattering to our intelligence. Now, own up, and then we can start again with a fair understanding."

"Say," Wright demanded, "d'ye know why I left ye the other night? Did ye know I left because I was afraid ye would gimme a slow order? Well, that's the size of it."

The official put one hand over his mouth, while with the other he pretended to fan himself. He laughed immoderately.

"You fellers"—the engineer lost all control of himself now—"are a bunch o' lunatics in this deal. Say, d'ye know that I took the mail through on time when they wasn't any other man on the whole job here that would have tried it?"

"D'ye think that a man that will risk his life that way for a better job is goin' to lay down because a lot of dumbheads over him have got their wires crossed?"

"Say, I took that train through the way I did because I knowed no other engineer could do it. I done it because I've been an engineer for sixteen years, and been willin' all the time to take every chance that might lead me a little nearer to the top!"

There was something so meaning in his tone and manner that it bespoke real desperation.

The despatcher stared at him for a full minute. Smiling curiously, he replied:

"Very well. In view of what you say, there may be a very excellent reason for our reconsideration of this matter. In fact, I shall have it reconsidered at once."

"When can I git your answer?"

"We will act rather for our own enlightenment than yours. But the finding will perhaps be had to-morrow."

There was something akin to threat in the despatcher's manner.

Suddenly Wright felt abashment at the thought that his intrusion on this man must have been the cause of offense. He shambled out of the room.

Three days later, when he was able to bring himself back to headquarters, he discovered that his name had been taken from the bulletin-board.

He stumbled over to his pigeonhole in the

engineers' rack on the wall. He fished out of it a thin, yellow envelope. His fingers shook so that he could barely tear the paper; but, at length, he succeeded. A check for all the money due him from the company fluttered in his grasp, but the certainty of his discharge was what the bit of paper really conveyed.

Discharge, when a man has every right to expect promotion, is, of course, heart-breaking; but discharge under suspicion is even a more terrible matter. This is especially true when the unfortunate has spent his prime in fitting himself for a work from which the least suspicion are always jealously excluded. Wright's knees shook under him as he left the place.

He walked slowly down through the sheds toward the network of tracks beyond which, a mile distant, the roundhouse lay long and low in smoke.

Miller, sauntering, met him and smiled that same triumphantly sneering smile which seemed to say, "You will try, but you will fail."

Wright understood the whole matter now. It was clear that this old rascal, fearing retirement to the lower pay of a less important run, had in some way engineered this whole trouble.

He was disposed to knock him down and half kill him right there; still, he reflected that it was the loss of his job, and not Miller's hand in it, that was likely to ruin him. So he grinned as affably as he could, and stopped. Miller stopped, too.

"You're off to-day?" the older man inquired with the peculiar impudence of one who knows there could not possibly be any doubt in the matter.

"Yes," Wright answered, "just for to-day. I got some personal business to attend to. I'm a lookin' for the scalawag that tinkered that air-brake on my engine."

"Jist between you an' me, I have to pretend that I'm fired. The despatcher is a going to do the same thing. We figger that this dub won't find out that anything is suspicioned of him: then, some day or other, he'll git funny an' give it all away."

Miller's mouth gaped and his eyes bulged. He seemed to pull himself together, and said he believed it was a fine scheme, but that he was in a terrible hurry and must go.

He started toward headquarters as if he expected some one from behind was about to take a shot at him.

Even in his dilemma, Wright was amused. He went on toward the roundhouse.

The wipers and hostlers were friendly with him, so he had no trouble getting inside—nor was he asked to explain why he loafed.

By nightfall he had learned two things: Miller had been in the cab of that engine that night, and had actually run it up from the roundhouse half-way to the station. The other fact was that, by taking out the bushing around the air-valve stem, one might loosen the packing and crowd it down into the pipe with the blade of a pocket-knife.

He knew now just what had been done, just when it had been accomplished and how—and, also, who was responsible.

But next day, when he came back, every one laughed at him. After a long time he learned that the despatcher and the others had discharged him because they thought he had tampered with the air in order to make his run appear the more marvelous; and, as this was a thing that really he might have done, too—had he thought of it—he was struck with a kind of helpless notion that, somehow, this business fitted him so closely that he would never get rid of it.

Nevertheless, he hung around the yards and the roundhouse. There was nothing else for him to do.

Though he had become quite hopeless, just as a man does when he dreams that facts are not as enduring as the hills, he still tried to plan some *coup*. After four days he decided on one. Then he went down to headquarters, and, finding Miller, said:

"I got next to it. And what happened to me is a goin' to happen to the very feller that done me."

Miller hurried into the despatcher's office.

Wright got out of the building as quickly as he could. Hiding himself behind a pile of trunks, he peeped, and presently saw Miller and the despatcher come out and look around as if they searched for some one.

Then the despatcher laughed and made signs at Miller, like a father when he thinks the imagination of the son has been playing him tricks.

"Go off," Wright heard the official advise, "and soak your head. Wright's not here, and I don't believe he has been. I can't imagine whatever put it into you to come with such a story, even if it was so. If I hear of it again, I'm going to have you tested for something more than your eyesight."

The watcher saw him turn back into the building.

But as Miller came slowly down the platform, Wright slipped along from pillar to pillar and truck to truck, keeping abreast and

yet concealed. At the far end of the sheds, however, he came boldly out and said: "Now I have you!"

Instead of replying, Miller jumped sideways and hurried down through the yards.

Wright smiled, and sat down at the end of the shed. Until he had seen Miller vanish into the smoke-cloud of the roundhouse, he did not stir. Then he got up and ran down there as fast as he could. He lurked along from stall to stall until he came to that one in which stood the engine for the mail run that night.

Sure enough, Miller was sitting up in the cab just as if it were about leaving-time. Two or three wipers were gathered round the footboard. They were trying to find out what he was doing. When he would not answer, they advised him to look at his watch and see if it were five hours fast.

Wright sat down outside.

After two hours it was six o'clock, and the day wipers were leaving for the night; while the night force came stringing in with their lunch-baskets on their arms.

Wright saw Miller get down out of the cab and start as if to come toward him. Then he showed himself.

Miller fell back, and began asking a greasy helper for a bit of supper; but the helper wanted to know why an engineer needed to have his meals carried to him when he was off duty, and, receiving no explanation, kept his bread and cheese.

Wright continued to sit at the door like a terrier at a rat-hole.

When nine-forty o'clock came, Miller crawled out of his cab and, calling a hostler, ordered him to take the engine up to the station. The man shook the piece of waste with which he was wiping brass and spat on the ground.

"Not on your tintype!" he growled. "Do you reckon I'm goin' up there jist to walk back, an' you a goin'? Well, I guess not! Whoever heard of such a thing?"

No one had. A half-dozen of his fellows had now gathered round him, and they took his part.

Miller, when he saw he must, backed the engine slowly out upon the switch.

Just as the footboard was passing the stall-door, Wright swung himself up and inside the cab. As soon as the engine struck the main switch he said: "Now, Miller, loosen up that bushin'!"

Miller turned around. Hunger, and anxiety, also, was in his face, and he would have been very angry had he dared. But he

was afraid; so he tried to smile. He was like a boy caught with a stolen watermelon.

"Loosen that bushin'!" Wright commanded again, and as if to enforce his order, he picked up the coal-hammer.

Miller got his wrench and worked slowly.

"Whoa!" Wright snapped. "Shut down! Stop right here till ye git it done!"

As he spoke he lifted the hammer with the apparent purpose of bringing it down on the other man's head.

Miller shut down.

"Now, jist be quick about the business! Ye know how it's done! Yer an expert. An' it's well ye are one. Otherwise ye wouldn't git up to the station in time to git out."

Miller took out the bushing and started to put it back again.

"Loosen the packin' first!"

The packing was jabbed and jabbed.

"Do it right!" the intruder thundered. "Ye got to fix it so the handle jist goes around of itself whenever ye touch it—or ye don't git away!"

Presently Miller announced that the job was perfect. Evidently it was, for the air seemed entirely out of commission.

"Hold on a minute longer!" Wright ordered.

It was now within two minutes of leaving-time, and the distance up to the station was a quarter of a mile. When the minute was up Wright swung down into the darkness, and he stood there until he saw that Miller, in his anxiety to get coupled up, was backing under a big head of steam. Then he went home.

The next morning, early, four policemen and a couple of deputy sheriffs came to his house and took him to the police court.

The despatcher, the superintendent, and the master mechanic were there already, and they had Miller and four lawyers with them.

The police judge was a very busy man. He could not be otherwise, as he was permitted only to send to the workhouse people who should be hanged; wherefore, they were always coming back to him.

For the same reason he was petulant, as a man always is when he knows the job will have to be done over again next week or next month.

He peered sharply over his spectacles at Wright, and spoke just as if he were shooting at him with an automatic pistol.

"You starved this man yesterday. You assaulted him. You made him break his en-

gine. You made him back into his train so fast that he couldn't stop. He made a horrible mess of the mail. He tied everything up over there in the switch-yards for half an hour last night. What have you to say?"

Now, Miller, who had winced at this recital of his accident, made haste to venture an explanation, as men in such situations as his often do.

The judge turned as if to devour him.

"What's this? You act and talk like a very smart man! No doubt of it! Perhaps you know better how to conduct this case than this court! Perhaps you had better tell the whole story!"

A very wise man would have seen that this was nothing more than an invitation to step out and be squelched.

But Miller was very sure of his facts. Moreover, he did not want the newspaper reporters to go off with the impression that it was his awkwardness that had tied up the mail. So he told in great fulness just what had happened.

He even went back to the night when Wright's trouble had occurred, and explained how his own presence on the platform might have given Wright suspicion. So far as the mere wording and the facts, it was a pretty well-told story; but it lacked one great quality to make it ring true.

It lacked Miller's resentment for what Wright had done; and, lacking this, it seemed the most absurd yarn ever told in a police court.

Every one laughed at the story-teller's dullness. Every one but the judge. He half-rose out of his chair and thundered: "One hundred days for this, Miller! Mr. Clerk, mark the arraignment as for perjury and conspiracy! Discharge this man Wright; for if Wright really did what he is charged with doing, then it's a moral cinch he was doing it to undo something this old fraud had done to him! Next case!"

As Wright stepped out into the street, the despatcher took him by the arm and demanded: "Say, how about it anyhow?"

"I guess the judge was right," the engineer replied.

"Say, old man!" The despatcher was now steering him down the pavement at a great rate. "There is no use trying to go over the heads of these courts. I've seen what happens to a man that tries it. But you just let me shake your hand every time I see you the rest of my days. We'll let the whole matter, from start to finish, abide by the judge's decision."

Ten Thousand Miles by Rail.

BY GILSON WILLETS,
Special Traveling Correspondent of "The Railroad Man's Magazine."

MR. WILLETS met an I. C., man at New Orleans to whom he said, "I am after 'G. A. R.,' yarns south of the Potomac." The railroad man smiled blandly, and handed our traveling correspondent a card on which was inscribed: "GLAD U KUM." Then Mr. Willets explained that "G. A. R.," seemed a bit unusual and treason-like to him.

"The Mason and Dixon line is a dead one down here," said the I. C., man. "'G. A. R.,' in the South, stands for Grand Army of the Rail." And then this good fellow coupled a few yarns onto the Willets Special-Story Train. He told, among others, the story of how Colonel Lampton and four hundred husky railroad boys drove the last outlaws from Louisiana, which proves that railroad-ing in the South has been as strenuous as railroading in the West.

To say that we thank the boys who have given Mr. Willets these good yarns, is to express the smallest part of our appreciation. You're all right, boys, and "Here's to you!" from the con in the magazine caboose.

No. 3.—THE "G. A. R." SOUTH OF THE POTOMAC.

The Louisiana Outlaws—Mark Twain's Oratory—Is It a "He" or a "She"?
The Pajama Party—Coble, the Hero—Money To Burn—The
Kindness of Railroad Men, and Others.

LAURENCE LAMPTON, president of the Banner Logging and Railroad Company, received a letter written in glaring red ink, and bearing the alarming sign of the skull and crossbones, and reading thus:

This is the last warning. Stop running your railroad.
THE BAMBERS.

"The Bambers be hanged!" exclaimed President Lampton.

He called in Mr. Preston, the superintendent of his railroad, showed him the letter, and said:

"I'm going down to New Orleans to-day to see the Illinois Central division superintendent about this matter. Some of his de-

tectives had a lot of experience in this parish three years ago, wiping out train-robbers who were holding up I. C. trains about every third night.

"I'm going to borrow some of those detectives and begin a war of extermination on this Bamber crowd. Either the outlaws leave the parish, or this company ceases business."

This happened at Kentwood, Louisiana, in Tangipahoa Parish, about eighty miles north of the Crescent City. The Bambers was the name given to those who objected to the new logging railroad which the Banner Company had recently built through the parish—a twelve-mile line connecting with the I. C. at Kentwood, where the company had the largest of its lumber mills.

Series began in June Railroad Man's Magazine. Single copies, 10 cents.

From Kentwood the line ran east to Gilltown, the stronghold of the Bamber gang—the last outlaws left in Louisiana, their leader being wicked Monroe Bamber.

The first shot in this war was fired by the Bambers on the very day that President Lampton received the skull-and-crossbones letter and went down to New Orleans in quest of the help of Illinois Central detectives.

That same morning four men, led by Monroe Bamber himself, jumped aboard the engine of the logging train at Gilltown, the eastern terminus of the little road. The outlaws compelled the men in the cab to start the train for Kentwood, threatening both with instant death.

Thus the Bambers took possession of the train and ran it down the line, stopping at every place where the Banner Company had men at work, and warning them to quit their jobs at once or die. Along the line, they nailed to the trees written warnings to the company's workmen to leave the parish.

Varnado, the Valiant, Falls.

At one place at which the Bambers stopped the train they found a gang of section-hands bossed by De Witt Varnado. Varnado was ordered to call his men off, or suffer the penalty of death.

The section-boss, after listening to the threats, deliberately turned his back on the outlaws and ordered his men to proceed with their work.

Then the first shot was fired in the war of the Bambers and the Banners. It was fired at the brave Varnado, and was followed at once by two more shots, the third killing him. His men, horrified witnesses of the murder, abandoned their work and took to the woods.

Down the line the train proceeded, the Bambers keeping the engineer and fireman covered with rifles till the end was reached. Here Monroe Bamber and his three pals rushed into the office of the Banner Company, confronted Superintendent Preston, and informed him that unless he quit his job he would be killed.

Out of the building the desperadoes marched the superintendent, warning him that if he was found within the parish the next day he would be shot. They returned to the train, and again compelled the engineer to run back to the eastern terminal.

Arriving at Gilltown, the Bambers found that the section-boss at that point, William

Magee, had kept his men at work all day, though he, like all the other section-bosses, had been told to quit.

An hour later, Magee, while on his way home, walked into an ambush, and was murdered by the Bambers, three bullets piercing his body.

Mustering His Army.

That night President Lampton returned from New Orleans, and was told of the above happenings.

"I'll fight 'em!" he shouted. "Fight 'em to a finish!"

President Lampton had come down to Louisiana from Michigan. He got his fighting blood from the Gridley's, being a cousin of the naval captain who had achieved fame at Manila on receiving Dewey's command, "You may fire when ready, Gridley."

President Lampton's first move was to rush over to the Illinois Central Station and send a telegram to the superintendent at New Orleans, requesting that the detectives be sent up that night by special train.

He sent another wire to New Orleans ordering four hundred rifles and ammunition. He ordered two of his men to scour the country, find four hundred horses, and hire every one of them.

He returned to his office, and summoned all the men connected with the Banner Railroad to appear at headquarters immediately. He sent similar word to every one of his mill-hands. The railroad men and mill-hands mustered four hundred strong.

Mr. Lampton addressed his boys. After reciting the story of the expulsion of Superintendent Preston and the murder of the two section-bosses and all the rest of the lawless work of the Bambers, he announced that his mills at Kentwood would close down, that the railroad would cease running, and that he would organize all the men there assembled into a regiment—every man to be armed and mounted—to proceed against the Bambers.

Their Banners Flew High.

"Our charge on the camp of the Bambers will go down into history as the Charge of the Four Hundred of Tangipahoa Parish!" Mr. Lampton concluded. "Now then, will you, boys, rally to the standard of the Banner Company in the name of public safety and community progress, or won't you?"

"We will!" thundered the Four Hundred.

Two weeks later the war of the Banners and the Bambers ended in victory for the Banners.

The Bambers, who could muster only a hundred men against the four hundred armed and mounted soldiers on the Banner side, agreed to surrender provided they be taken to New Orleans, where they would be safe from lynching.

President Lampton agreed to the condition—and within a week the Banner trains were running as usual and the mills were again in full blast.

Down in Virginia.

Engineer Bell and Fireman Burton sat in the cab of the 103, waiting for the signal to get out. Brakeman Shoemaker shouted to Superintendent Reese, Master Mechanic Lewis, and Superintendent of Rolling-Stock Sanderson that the Pullman sleepers were way down at the end of the train, and that they would have to "get a skate on."

Conductor McGuire shouted, "Let her go, Bell!" then hopped aboard the first train to run over the Virginia Railway.

This happened at 8.30 on April Fool's night, 1909. The place the historical train started from was Roanoke, Virginia. It consisted of twelve passenger-coaches and two Pullman sleepers loaded with business men of Virginia and West Virginia, through which the new road ran for a distance of four hundred and forty miles, from Norfolk to Deepwater.

The passengers were bound for Norfolk to take part in the festivities in honor of the opening of "The road that Rogers built."

The next day was the greatest in the existence of the late Henry Huddleston Rogers.

He himself said so, even though he had put money into the Virginia Railway with a shovel—thirty whole millions of dollars, and all of it out of his own cash-bin.

The road was now all paid for, and Mr. Rogers and his friend, Mark Twain (the late Samuel L. Clemens), were at the Norfolk Station to witness the arrival of the first train over the line.

When Engineer Bell jumped down from the cab, Mr. Rogers shook his hand and



McGUIRE CLOSED HIS WATCH, SAYING: "IT'S ALL OVER, BOYS."

told the crowd that he was happy as a prince with just the bulliest new toy—a railroad that would help a lot of people in Virginia and West Virginia to acquire a degree of prosperity such as they had never known before.

The Orator of the Day.

Engineer Bell, having been thanked by Mr. Rogers for bringing the first train safely down the line, then followed Mr. Rogers and Mark Twain and the crowd over to the

Monticello Hotel, where a great public reception was held.

With Engineer Bell went many other boys of the new Virginia Railway; and when the reception began, some of them stood near the receiving-line and watched the handshakers pass by.

There were fully a thousand handshakers in line; and when the doors opened, those at the head started in by shaking the hand of a man with long white hair and a long white mustache, congratulating him upon the completion of his railway.

Engineer Bell, hearing the words addressed to the white-haired man in question, snickered. At the same time, Fireman Burton simpered, Conductor McGuire chuckled, and Brakeman Shoemaker laughed out loud.

Moreover, among those who stood near the white-haired man was Governor Swanson, of Virginia. Noticing what was happening, he did his best to suppress a smile, while United States Senators Daniel and Martin stared in amazement.

When the thousand business men of Virginia and West Virginia had shaken hands with those on the receiving-line, the crowd yelled:

"Speech! Rogers! Rogers!"

The white-haired man who had been congratulated by so many of the crowd mounted a chair and said:

"My friends, while I have been shaking your hands I have listened to some very fine compliments. I could not help but feel flattered as you passed me and thanked me so sincerely for the splendid road I had built through your State. I like compliments, gentlemen, and I thank you."

"We Want Rogers!"

These words caused a great roar of laughter, and for the first time those who had congratulated the speaker realized that they had made a mistake.

"Speech!" again roared the crowd. "We want Rogers!"

This time arose another white-haired man. "Gentlemen," he said, "it is my business to build railroads. I employ my orator here to talk about them," and he laid his hand on the shoulder of the speaker who had preceded him, Mark Twain.

Five weeks passed—only a short five weeks after that happy day in the life of Henry Huddleston Rogers. Engineer Bell and Fireman Burton sat again in the cab of the 103—not at Roanoke, but way down

the line at a lonely spot in the hills of West Virginia. The train had come to a stop.

Conductor McGuire and Brakeman Shoemaker were standing beside the engine, McGuire holding his watch and consulting it from moment to moment.

Finally McGuire removed his cap. Engineer Bell and Fireman Burton also uncovered.

McGuire closed his watch, saying: "It's all over, boys."

At that moment all that was left of Henry Huddleston Rogers was being placed in a sarcophagus at Fairhaven, Massachusetts.

All the wheels of the new Virginia Railway were standing still, and all its employees were standing motionless, with bared heads.

The Sex of a Locomotive.

Mr. Richards is the industrial agent of the Southern Railway. He is an all-round hustler and whooper-up of the superior advantages of life in the Southern's territory. He has been on his job for years, and knows the field south of the Potomac as thoroughly as any division superintendent knows his own division.

Mr. Richards is, moreover, the editor and publisher of all the Southern's literature pertaining to farms, mines, manufactures, immigration, and homesteads—a large quantity of which literature was given to me by the chief clerk at Mr. Richards's Washington headquarters.

From the pamphlets I made one clipping, put it in my pocket, then went out to the railroad yards beyond the Union Station, stopped in at the hostler's shanty that stands within the shadow of the Capitol, made the acquaintance of the engineers gathered there, took out my clipping, and said:

"You all know Mr. Richards, don't you?"

"Bet we do. He's to the Southern Railway what Secretary Wilson is to the government. He's the grand master farmer of the outfit."

"He's something more than that," I said. "He's a novelist, a poet, and a prince of descriptive writers. I made the discovery about forty-five minutes ago. For example, here is his description of a locomotive. I clipped it from one of his monthly agricultural papers. It appears under a picture of one of the Southern's new engines. Let me read it to you."

I read as follows:

"The horse of steel stands at the head of all material creations of man. With a good way



"HE CRAWLED ON AND ON
TOWARD BROWN SUMMIT."

for his feet, he moves along a thing of beauty and of use beyond compare. He presses forward as incessantly as the minutes and hours. He has intelligence: listens to the banging of the wheels to test their soundness; has pleasure when his joints are eased with oil; keeps tab on his driver; peers ahead with his Cyclopean eye, anxious to make time and connections without trying to pass a brother on the same track, or go nose down in the water, or be forced off sidewise over an embankment. This elephantine horse has individuality and character; he has a will of his own and fixed habits, even as the ship of the sea."

"*He!*" exclaimed one of the Southern's engineers, Hy Davis. "Humph!" he added. "What you humphing about?" asked one of Hy Davis's confrères of the throttle. "That writin' is O. K. and all to the good."

A "He" or a "She"?

"*He!*" repeated Hy contemptuously. "A locomotive ain't a *he*. A locomotive is a *she*. *She* wears an apron."

"So does a waiter," put in one of the men. "So you can't prove female sex with an apron."

"Well, she wears a jacket," said Hy.

"So do bull-fighters and bell-hops," insisted one of Hy's friends.

"She's always attractin' the attentions of men," persisted Hy.

"So do Congressmen in that building across the way," protested another.

"But she's got a *lap!*" cried Hy.

"You win!" chorused the engineers. "It's true. A locomotive's got a lap. Yes, she's a sure-enough female."

"Which proves," said Hy, "that Richards ain't a real railroad man. He's just a nov-

elist. When he wrote about the steel horse, he meant the steel mare."

The Pajama Party.

"Talking about Mr. Richards not being a railroad man," said that same Hy Davis, as I walked down the yard with him, "reminds me of Trainman Lew Jacobs."

"Lew was in that wreck, three weeks ago, down near Greensboro, North Carolina, when No. 11, on the Southern, dropped twenty-five feet from a trestle into a river, like an elevator dropping from a third story to the cellar."

"When it was all over except the hospital attendance and the funerals, Lew found himself sitting on top of a Pullman alongside of a dark-skinned man with a black mustache, who suddenly took off his overcoat and threw it over to dry land to a woman who really needed it, for the smash had come before getting-out-of-bed time in the morning."

"The dark-skinned man, having thrown his overcoat to the woman, was now arrayed just as he was when thrown from his berth—in blue pajamas. Lew looked him over a moment, then said:

"'You're all right, sir; yes, you are. I'll help you down off this roof.'

"'You're one of the trainmen, are you not?' replied the shivering man. 'Never mind me. You go help the others first. I'm a railroad man myself—and I'll wait.'

"'You're a railroad man, eh?' said Lew. Then he sprang the moth-eaten and moss-covered test, like this: 'What *time* do you guess it might be, sir?'

"'I should say about half past seven,' was the answer."

"Thereupon Lew looked sideways at the dark-skinned man a moment, then said:

"'You ain't been a railroad man long, have you?'

"'Why do you ask that?' the pajama-man inquired.

"'Because among us railroaders the time is about seven-thirty. You better let me help you down?'

"'Go help the others first,' said the shivering man curtly. 'I'll take care of myself.'

Let George Do It.

"Well, Lew slipped off the roof of the Pullman into the water and swam across to where a shattered day-coach lay on its side in the stream, from which Conductor Coble—good old Georgie Coble!—was just pulling himself loose. He was pretty well battered, and hardly able to stand on his feet. When Lew came up, Coble said to him:

"'Saw you talking to George Gould. Is he hurt much?'

"Trainman Lew Jacobs gasped, looked across at the pajama-man on top of the car, then said:

"'What name did you say?'

"'George Gould, Jay Gould's son, president of the Mop and a few other roads. How'd he come out of this?'

"'He's all right, but I'm all in wrong,' Lew replied. 'Mr. Coble,' he added, 'I want to tell you that this here business of trying to spot a real railroad man by just askin' him the time o' day is all on the gabosh, and isn't worth a picayune as a test.'

"Then Lew Jacobs got as busy as a gas-meter helpin' victims from the wreckage—goin' fast as he could to everybody in sight, but carefully avoiding that pajama-man perched on top of the Pullman.

A Con Named Coble.

"And now," continued Hy Davis, "let me just tell you the name of the one largest hero among the crew of that wrecked train. He was that selfsame conductor who asked Lew

Jacobs about the health of George Gould—Conductor Georgie Coble. That conductor, I'm telling you, was himself badly injured and some shattered as to nerves. Yet he had courage left and to spare, you just bet.

"What'd he do? Well, this is what he did.

"Georgie Coble allowed that all those who were able-bodied ought to stay at the wreck to give first-aid. Yet some one would have to go to the nearest telegraph office and send for a relief train. And Georgie Coble allowed that the man who ought to go after the relief was himself.

"The nearest telegraph office was two miles away—and maybe three. It was at Brown Summit, North Carolina, and toward that place Georgie Coble now began making his way.

"He stumbled along for a furlong or so, then took to his hands and knees and crawled over the ties—for I'm telling you that Coble was badly injured, and



"PUT THAT STUFF BACK
WHERE YOU FOUND IT!"

while he was crawlin' he was sufferin' all kinds of agony.

"He had not only been smashed in the wreck, but had narrowly escaped from drowning. And so he was sick at his stomach, and his clothes soakin' wet, and the December morning awful cold—still he crawled on and on toward Brown Summit, at last arrivin' at the telegraph station on his hands and knees.

Just as he finished telling the operator there what to do, Georgie Coble lost all knowledge of things here on earth.

"Pretty soon the relief train that Coble ordered came down from Greensboro.

"I'm telling you to make a note that the hero of the wreck at Reedy Fork Trestle, about the time of the last pay-day of nineteen-nine, was a conductor named Coble."

Money to Burn.

Thomas Franconia, foreman of wreckers of the Washington Southern Railway, was taking a nap in the caboose attached to his wrecking outfit, while it stood at Fredericksburg, Virginia, when he received an order to hustle down the line to a point south of Wood's Lane, where a freight and an express had come together in a rear-ender.

When Franconia arrived at the wreck, he learned that fire had broken out immediately after the collision, that six oil-tank cars had burst open, and that the flames of the burning oil had set fire to the two express-cars at the head of the passenger-train and to about half of the cars of the freight-train.

"When you see tankers burnin'," said Franconia to his men, "light your pipes and sit down and take it easy."

He lighted his pipe and puffed away, his men doing likewise.

"There ain't nothing else to do," Franconia went on. "When you go up against burning oil, there ain't no use in trying to put out the blaze, 'cause you just can't do it."

The heat became so intense that Franconia and his gang were obliged to move farther from the fire.

When the oil had at last burned out, Franconia and his wreckers put the hose on the wreckage, cooled it off, and then began clearing away—dumping everything down an embankment.

Franconia saw one of his men toss down the embankment a chunk of metal mixed with earth. Then another chunk, and another. Other men joined the first one, and with desperate haste began tossing down still more.

Along came a farmer, who picked up one of the chunks, examined it for a moment, then started away with it.

"Hey, there!" called Franconia. "Put that stuff back where you found it!"

Worth While.

Franconia had noted that the lumps of metal had a peculiar shiny appearance. He tumbled down the embankment, picked up one lump, scrutinized it closely, then suddenly shouted up to the engineer of the locomotive pulling his wrecking outfit:

"Back down and bring up that empty coal-car!"

When the car was brought up to the wreck, Franconia gave this order to his gang:

"Come down here and pick up all these chunks you've been throwing away, and load em in that car."

The men, assuring one another in undertones that the foreman had suddenly gone crazy, proceeded to carry the chunks back up the embankment.

"Now," said Franconia to the engineer, when he had made sure that every last lump was loaded, "pull that car up to Washington."

"What fool job is this you're giving me?" asked the engineer. "What's the good of hauling that worthless stuff up to Washington?"

"A Treasury agent will meet you," said Franconia, ignoring the engineer's protest. "I'll wire up—and when you get to Washington the Treasury agent will do the rest."

"I know," said the engineer, after thinking a moment. "Those are chunks of silver."

"Right you are, my boy. Silver dollars and halves and quarters. There were chests of money in those express-cars, and the heat of the burning oil reduced 'em to scrap mixed with other metal and dirt."

It was true. The Treasury Department had shipped \$180,000 in silver in one of the express-cars. The messenger was killed in the collision, so the wreckers were left in ignorance of the value of the cargo until Franconia made the discovery. The silver, having left Washington as money, was now returned, with Franconia's compliments, as bullion.

The Good Samaritan.

Mr. La Baume is to the Norfolk and Western what Mr. Richards is to the South-

ern Railway. He is the agricultural and industrial agent. He brings settlers to his territory, and then shows them how to make a crop grow where none grew before.

When the settlers get their houses built and their crops started, Mr. La Baume takes out special agricultural trains with expert lecturers, and helps the settlers some more. When a settler gets into trouble on the N. and W., Mr. La Baume personally hastens to the rescue.

'Twas the night before Christmas at the Roanoke headquarters of the Norfolk and Western. Not a railroad wheel was stirring except in the station clock. The reason no wheels were going round was because they didn't dare. The "Magic City" was shrouded in a fog so thick that locomotive drivers couldn't see an engine's length ahead.

"It's the limit," said General Passenger-Agent Beville to Mr. La Baume, as the two groped around trying to find the gate leading into the grounds of the hotel opposite the N. and W. general offices.

"It's like London," answered Mr. La Baume. "If No. 16 gets in here to-night, she'll have to crawl in on her hands and knees. She's due now."

It was then midnight. A prolonged locomotive whistle was heard.

"It's 16 whistling in," said La Baume.

About a half-hour after the train was safe in the station, a man rushed into the Roanoke Hotel, found Mr. La Baume, and cried:

"Come down to the station. There's a woman there with eleven children. She lost her husband down the line, and wants the railroad to find him."

The Mother of Eleven.

Mr. La Baume found that the woman with eleven children was a Bohemian immigrant whose husband, Charles Krieger, had left the train at Bluefield, West Virginia, saying that he was going for something to eat. He did not return, and the train went on without him.

The missing husband had all the railroad tickets and baggage-checks, but the crew brought the mother and her eleven children on to Roanoke.

The chief train-despatcher wired to Bluefield asking if anything had been seen of a man named Charles Krieger. Hour after hour passed, and then, at four o'clock in the morning, came the answer saying that Krieger had been found—hanging by the neck to an apple-tree.

The mother of the eleven children was informed of the suicide, and all the rest of the night and all Christmas Day she remained in the station, waiting for the coming of the train bearing the body of her husband.

Every kindness was shown by the station men, who passed around a hat and collected a goodly sum for the widow.

Meantime, Mr. La Baume learned that the fatherless party was bound for the Bohemian colony at Estes, Virginia, which Mr. La Baume, by his own enterprise, had founded and furnished with settlers and watched grow up to a thriving town. No. 16 pulled in with the body of the suicide. Mr. La Baume took the train, with them and their dead, at midnight and proceeded to Petersburg, a five-hour ride, keeping him up all night.

At Petersburg he hired carriages and drove the party down to Estes, a seven-mile ride. There he turned the bereaved family over to friends, and the widow insisted upon kissing the hand of the railroad man who had befriended her.

Discipline His Hobby.

Charlie Griffin, the train-caller at the Terminal Station at Atlanta, was a stickler for discipline. He wouldn't break a rule made by Mr. Blount, the station-master—no, not for love nor money.

If he happened to see another man breaking one of Mr. Blount's rules, it hurt Griffin's conscience so much that he would proceed to act for and in behalf of the station-master by gently but firmly leading the rule-breaker back to a proper respect for Mr. Blount's measures.

Imagine Train-caller Griffin's indignation when, just after shouting notice of the departure of the "Five-twenty Dixie Flier for West Point, New Orleans, and all points south on Track No. 9!" he beheld a ticket-seller standing in the waiting-room with a long black breva clinched between his teeth.

"Don't you know it's against rules to smoke in this room?" cried the wrathful train-caller, showing teeth, Roosevelt style.

"Mind your own business," replied the ticket-seller.

Aghast at such defiance of the rules, the train-caller went to Mr. Blount and reported the heinous breach of discipline. The station-master promptly called the offender on the carpet.

"Wasn't smoking a little bit," he said. "My cigar was not lighted. And you, Griffin"—turning to the train-caller—"you lie!"

"Just for that," answered the train-caller in suppressed anger, his face lurid with the Harvard colors, "I'll punch you so you'll look like you've been through a thrashing-machine. I'll do it the first time I catch you outside of this building."

"When you get up against me, Griffin, you'll find yourself merely the flea on the lion," said the other.

The next morning the two men met outside of the building, a whole block from the discipline of the station. The ticket-seller had for company a number of railroad men. The train-caller was alone.

"Well, here I am, Griffin!" cried the former. "Ready with that thrashing-machine?"

The Other Cheek.

To the amazement of the railroad man, what do you suppose happened then? The train-caller, instead of closing in on his opponent, merely smiled, took off his cap, executed a Chesterfieldian bow, and said sweetly:

"Nothing doing, gents."

"Mollycoddle!" muttered the ticket-seller. "Go as far as you like," answered the train-caller. "You can't get a rise out of me." He passed on, with his head high.

"Well, don't that beat all!" said one of the railroad men. "Here we were lookin' for that train-caller to show us some stunts. Instead, he's all serene, and announcing nothing doing in the way of a scrap."

It was indeed a mystery, a whole seven-day mystery, during which time the train-caller persisted in turning the other cheek to the ticket-seller every time they met on each of those seven days. What on earth had happened to the train-caller, who, before that, had always shown pugnacious tendencies, but who now meekly suffered all the slings and arrows that the men flung at him from day to day for seven days?

On the eighth day, however, the secret leaked out. It was found that, on the very evening on which Griffin had found the ticket-seller smoking in the waiting-room, he stopped in at the Railroad Y. M. C. A., walked into the secretary's office, and said:

"Mr. Secretary, I heard a lecture in these rooms some time ago in which the lecturer



HE LET OUT THAT LONG-DELAYED PUNCH.

told that yarn about turning the other cheek. Now, my conscience is troubling me a whole lot, and I want your advice. I have promised to punch a certain fresh party to-morrow morning, and what I want to know is—shall I or sha'n't I?"

Not the Story's End.

The horror-stricken secretary promptly told the train-caller all about the wickedness of fighting. The result of the lecture was that Charlie Griffin did turn the other cheek.

A novelist would end the tale here; but I, as a railroad reporter, am compelled to state that on the day after the secret of his humility had leaked out, the train-caller caught the ticket-seller in the waiting-room again with a cigar in his mouth. This time, without further ado, he let out that long-delayed punch and sent the ticket-seller to the floor.

Blount sprang forward to referee the duel. He counted ten, and still the man lay helpless.

"Mr. Blount," said the train-caller, "does he look as if he'd had enough?"

Winning a Lawsuit.

Yardmaster Joe Eager, of the Louisville and Nashville Railroad, at Paris, Tennessee, sat in his office reading a newspaper, when suddenly he muttered:

"Hanged if I don't think I can win this lawsuit for the railroad!"

He was alone in his office, and no one was within hearing; but, all the same, he pounded his fist on his desk and said:

"Say, I'm jiggered if I don't win this suit for the company. I'll take out an engine and make the test. If the engineer can stop in time, we lose; if he can't stop in time, we win."

Joe Eager went over to an office labeled "Attorneys-at-law," and there had a long talk with two men.

That same night a locomotive pulled out of the roundhouse at Paris and backed down the track a piece, where a caboose was coupled on.

In the cab was Engineer Bill Murray and a fireman. In the caboose was Conductor Chad Petty, Joe Eager, and two men in long black coats who were not railroad men.

The little train sped along to a place just south of McKenzie.

Eager jumped off and called to the engineer:

"All right, Murray! Back up a quarter of a mile so as to return past this spot at full speed."

The little train backed away, and the yardmaster did what will seem a queer thing for a railroad man to do. He lay down beside the track with a leg across one of the ribbons of steel.

There was no moon that night, but the engine's headlight was the brightest the road owned. The engine, having backed up a quarter of a mile, now came swooping toward the spot where the yardmaster lay, the engineer blowing his whistle the moment he caught sight of the man on the track, then reversing and making every attempt to stop his train before reaching the man—but all in vain.

The yardmaster, as the train drew near, jumped up and scampered to a safe distance from the track—and the train flew past.

"That'll do!" cried Eager, as the train came back to pick him up. "This test shows me that I'll win that suit for the L. and N., and don't you forget it."

He jumped aboard the caboose, and the train returned to Paris.

The next day those who had gone out with the engine and caboose the night before, including the two men in black coats, appeared at the court-house, where the case of *Mose Lucas vs. The Louisville and Nashville Railroad* was to come up for trial.

The lawyers representing the plaintiff stated their case. They said that Lucas had lost his leg by being run over by a train of the Louisville and Nashville Railroad near McKenzie, Tennessee, and wanted one thousand dollars damages.

The Lawyer Speaks.

Then up rose one of the men in black coats who had gone down to the spot near McKenzie the night before. As one of the attorneys for the railroad, he addressed the court thus:

"Your honor and gentlemen of the jury: Paris, Tennessee, in which this court sits, is the division-end of the Memphis-Paris run of the railroad whose cause, as defendant in this suit, I now have the honor to plead. In charge of the yards here is a yardmaster who, from the first, believed that the plaintiff was run over through no fault of Engineer Murray, who was at the throttle of the train which ran over the plaintiff. The yardmaster to whom I refer is Joseph Eager, whom I beg leave now to call as a witness."

The yardmaster came to the stand, and the attorney for the railroad said:

"Last night you took an engine down to the spot near McKenzie where the plaintiff was run over, did you not?"

"Yes, sir."

"The headlight of that engine was the most powerful the railroad company possesses, was it not?"

"Yes, sir."

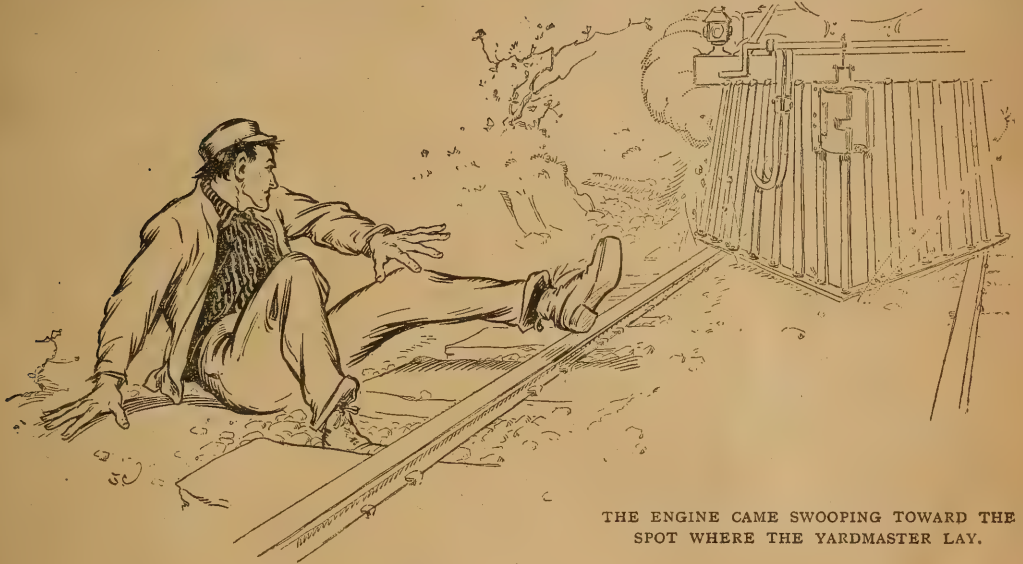
"That engine was run by William Murray, who was at the throttle when his train ran over the plaintiff, was he not? And in

judge gave it to the jury—a backwoods' jury—which filed out, was gone about five minutes, then returned and gave a verdict for the plaintiff, stating that he was entitled to the damages claimed.

The result was that the L. and N. had to pay Mose Lucas a thousand dollars.

Two weeks later, Joe Eager met Engineer Bill Murray and Conductor Chad Petty when those two pulled in on their train from Memphis. Said the yardmaster:

"I'll be hanged if ever I try again to win a lawsuit for any railroad company. Know



THE ENGINE CAME SWOOPING TOWARD THE SPOT WHERE THE YARDMASTER LAY.

the caboose behind the engine, last night, was Chadwick Petty, the conductor in charge of the train that ran over the plaintiff?"

"Yes, sir."

"You, Mr. Yardmaster, lay down on the track in about the position in which the plaintiff lay when struck, did you not? And the engine then came down the track, and the moment the engineer saw you he tried to stop the train, but could not—is that not so?"

"Yes, sir."

"Well, then, your honor and gentlemen of the jury, since it has been proven that the engineer could not stop his train before running over the plaintiff; and as the plaintiff was lying where he had no business to be lying; and as, moreover, the plaintiff was drunk at the time of the accident—I now ask that this case be quashed without taking up any more of the time of this court."

Instead of quashing the case, however, the

what I got for all my trouble? Got a reprimand to-day from headquarters for takin' out an engine without orders!"

Ten Dollars for His Heroism.

Conductor Lige Combs of the Coal and Coke Railway, with a run through West Virginia, is living proof that all the heroes among railroad men are not on the trunk lines.

Combs's road is only one hundred and seventy miles long, connecting the West Virginia towns of Charleston and Elkins.

Here is a new feat in child-saving performed in a new way, by Conductor Combs.

Lige was very fond of children. He admired particularly the little daughter of one of the section-hands on his run who lived in the section-house just out of Leiter, not far from Roaring Creek.

The section-man's name was Exeline, and

his five-year-old daughter's name was Ingrid Exeline. Combs had often seen the little girl, and he pronounced her the sweetest little thing on his run.

One day last January, Combs's train pulled

by the back of the neck and threw him over a fence.

On he rushed to where the child stood. Off came Combs's uniform-coat, and around the little Ingrid he threw it, then rolled her on the ground, and with his bare hands beat out the flames.

The mother was absent at the time, and Ingrid was all alone at the section-house.

Combs had to buy a new coat. It cost him ten dollars. He told the boys of the Western Maryland Railroad at Elkins where it connects with the Coal and Coke Railway—and the Western Maryland boys in turn told me at Baltimore—that "it was worth twice ten dollars just to see that pestiferous dog wrigglin' through the air while going over that fence."

The Song of the Lash.

To Special Officer Darnall fell the duty of guarding property and preserving peace at the railroad station at Melville, Louisiana, about a hundred miles out of New Orleans, the station being used jointly by the two roads entering the town: the Texas and Pacific and the Opelousas, Gulf and Northeastern.

For months Darnall had worked overtime arresting pesky hoboes who committed depredations on the right-of-way of which he was the guardian. Finally

he began offering up a daily prayer that some one would invent, devise, or conceive some form of punishment for the act of hoboism that would cause tramps to avoid Melville, Louisiana. One day his prayer was answered.

It was on a Sunday in February last. Darnall, soon after reporting at the railroad station for duty, saw smoke issuing from a box car a little way up the track.

"Another human varmint," he opined, and he girded up his loins and proceeded to stalk the game.

Suddenly looming up at the door of the box car and peering in, Darnall saw a bo sitting by a fire—a blazing pile on the wooden floor. Pointing his big gun at the man, he said:

"Kick out that fire and come with me!"

Half an hour later the special officer arrived at the mayor's house with his prisoner.



DARNALL ACTUALLY DID AS THE COURT ORDERED.

away from Leiter on its way to Roaring Creek, and presently approached the section-house where little Ingrid lived.

Looking toward the house in hope of catching a glimpse of his little favorite, Combs saw her standing in the door of the section-house with her dress on fire.

The flames were threatening to envelop her, and Combs heard her screaming in agony.

He pulled the cord signaling the engineer to stop. But he could not wait for the train to come to a standstill. The child would be burned to death before he could get to her.

Not another soul was anywhere in sight to run to the little girl's aid; and, although the train was in motion, Combs rushed to the steps of a car and jumped.

He rushed up to the section-house, only to be met by a dog that made for him. Combs kicked the dog, but Fido came back at him, madder than ever. Combs seized the animal

"This one is the worst I've found yet, your honor," said Darnall. "He was usin' the wood floor of a box car for a hearth. Can't you think up some new kind of punishment for him, your honor?—some powerful sight harder punishment than you usual-dish out?"

"What's your name?" the mayor asked.

"Will Williams."

"You're fined four dollars."

"Ain't got four dollars, judge."

"Then you'll have to work on the roads."

"No, no," said Darnall. "That ain't punishment enough, your honor."

"What, then, do you want me to do with him?" asked the mayor.

Just then, through the open windows of the mayor's house, came the cry from within the near-by wilderness of live-oaks:

"Whip-poor-will! Whip-poor-will!"

Hearing this cry of the bird of the air, the mayor's eyes took an inspired expression. He meditated, then said to the prisoner:

"Did you say your name was Will Williams?"

Next month Mr. Willets will tell you about a number of the daughters of the "Grand Army of the Rail south of the Potomac," under the heading: "Some Railroad Girls in the Dixie Camps."

RACE TO COME IN LAST.

Shasta Limited Crews Unable to Arrive Late Enough at Sidings to Avoid Throwing Switches.

UNDER a new trackage agreement, the Shasta Limited runs from Portland to Seattle, and part of the way, from Vancouver to Tacoma, on the Northern Pacific tracks.

In common with the Northern Pacific trains the limited on this section of its run is operated under what is known as the A B C block system. As it passes each station the engineer gets running orders to the next station, these being handed to him from a "clip" by the station-agent.

These orders often contain instructions to pass a certain Northern Pacific train at some siding, out in the country; and railroad etiquette demands that the crew of the trains first reaching a siding shall get out and throw the switches at either end, so that the second train will not have to stop. And if there is anything the average passenger brakeman hates, it is to get out, unlock and throw switches, pass his train along, throw the switch back again, and then chase up the track after the last car.

Between Portland and Tacoma the Shasta Limited is the crack train of the run. It has the fastest schedule, and it averages over thirty miles an hour for the entire trip. Northern Pacific crews have strict orders not to hold it up by being late at passing points; but the Northern Pacific engineers know their road thoroughly, and can calculate to a

"Yes, sir."

Just then the cry from the oaks was repeated:

"Whip-poor-will! Whip-poor-will!"

"Hanged if that bird ain't right!" exclaimed the mayor. "I'll do it. Darnall, you'll take this Will Williams outside and whip him. Give him forty lashes on the back, under the laws of the State of Louisiana."

"No, no!" protested Darnall. "I ain't hankerin' for that job myself, sir. Call over the Texas and Pacific station-agent and let him do it. Or call over that freight-handler of the Opelousas, Gulf and Northeastern. They are huskies."

"No," insisted the mayor. "This crime was committed on the property of both the railroads. The car belonged to the Opelousas, Gulf and Northeastern, but it was standing on a track of the Texas-Pacific. Now, Darnall, you represent both roads, and I order you to administer forty lashes on this Will Williams."

Darnall actually did as the court ordered.

nicely the length of time it will take the Shasta train to run from point to point.

The result is that the Shasta Limited always reaches the sidings just a few seconds before the Northern Pacific trains, and the Shasta crew has to pile out, regardless of weather, and throw switches. As soon as this is done the Northern Pacific train looms in sight, rushes past on its clear track, and its engineer, conductor, and brakemen lean out of the cab and vestibules and wave laughing greetings at the Shasta men standing at the switches.

The engineers of the Oregon and Washington trains are doing their best to so time their arrival at passing points as to force the Northern Pacific men in first upon the sidings; but so far they have not succeeded. With only a minute of leeway at passing points it requires a thorough knowledge of the road and running conditions to "lay back" without losing time; and so the merry comedy has so far been all one-sided.

Oregon and Washington crews say they do not care so much about the other two trains, but they declare that they will yet solve the mystery, and get the Shasta Limited through without having to tumble out at every passing point and "get the laugh" from the Hill road crews.



THE RAILROAD EATING-SHACK.

BY BESSIE BARDSLEY.

Written for "The Railroad Man's Magazine."



TAKE me way back to Nevada, where beside the gleaming track,
 Standing just next to the switch-head is the railroad eating-shack.
 Where the foot-hills cut the sky-line on the west and on the east,
 Where the sunset's gorgeous rainbow gives the eyes an evening
 feast.

While trailing down the canyon comes a sneaking little breeze
 That cools your heated blood and brain and makes your fingers freeze!

I want to see the boys again, to know who's first out now,
 I want to hear the roundhouse men start up a friendly row;
 There's always something stirring there 'tween the hashers and the boss,
 The "shade of the temple" Mormon boys and the prune-pickers up from Los.
 I want to hear the same old joke—that everywhere else on the line
 The towns are swell and the grub is good and the weather always fine.

Take me back to where the porter, "Hash-House Willie," beats the gong,
 While the train stops and the tourists rush inside, a hungry throng—
 I wouldn't mind the daily kicks 'bout the price of apple pie,
 Or, "Beans, fifteen cents, and coffee, ten! It's robbery!" they cry.
 "What State is this Nevada in?" I can hear some one ask,
 And, "How soon do you think you'll own this joint? How long do
 you think you'll last?"

Take me back to where the best double-discounts all the worst,
 Where the West is wild and woolly, as it used to be at first.
 'Mid the sage-brush in Nevada where the foot-hills guard the track,
 Where the Indian builds his wigwam near the railroad eating-shack.

WITHOUT LIGHTS.

BY J. AUBREY TYSON.

A Woman Wages a Battle, Which Is Usually the End of All Things.

CHAPTER XIX.

A Woman's Battle.

ERSKINE, who had already risen, regarded the young woman with an expression of bewilderment. McGrane's astonishment held him to his seat. Miss Warrington, raising higher the veil that had partly concealed her features, turned to the Irishman.

"You may leave us," she said curtly. "I should like a few words, however, with you, Mr. Erskine."

McGrane rose like a man in a dream, removed his hat, and left the room. He had scarcely closed the door behind him, however, when it was opened by the porter of the car, who asked whether the ladies wished to have their berths made up for the night.

Louise shook her head. "No, we shall not require them," she answered.

The porter went out, and when the door was closed again Louise, laying a hand on her mother's arm, led her to the seat that had just been vacated by McGrane. On this the two women sat down together. Mrs. Warrington, sobbing quietly, hid her face in her handkerchief.

"Sit down, Mr. Erskine," said Louise.

The young man did so. Louise surveyed him thoughtfully. At length, breaking the silence, she said:

"Mr. Erskine, I have taken your advice."

The young man nodded. "Indeed!" he exclaimed quietly.

"Yes. I have telegraphed to my father, asking him whether anything serious has happened to my brother Joseph."

The young man flushed slightly, then grew more pale as he regarded her inquiringly.

With nervous fingers Louise opened the chatelaine bag she carried, and from it she drew out a yellow telegraph-form.

"This is the reply to my message," went on Louise, as she held the paper toward him.

Erskine, leaning forward, took the message from her extended hand, and glanced it over quickly. It was addressed to Miss Warrington at Bernardville, and read as follows:

Joe disappeared two days ago. If you cannot persuade him to return at once his disgrace is inevitable. All who have chosen path other than mine, must follow it. Expect no further communication from me.

FATHER.

After carefully reading the message, he held the paper toward her. She took it nervously.

"You see, it is about what I told you I expected to receive," she said weakly.

Erskine looked at her more sharply. Her manifest nervousness and the unsteadiness of her voice plainly indicated that something had weakened the proud, uncompromising spirit that had dominated her before.

"You think the message was designed for the purpose of causing you to return at once to Chicago?" he asked gravely.

"Yes."

Erskine rose deliberately. "Then I have nothing more to say," he answered with a bow of resignation.

"Stop!" the young woman exclaimed impatiently. "You are wrong. There is something more to say."

Fred resumed his seat and dropped his hat beside him. From without there came several sharp shrieks of a locomotive whistle, followed almost immediately by a low, rumbling sound. The Cascade flier was getting under way!

Grasping the arm of her seat, Louise Warrington leaned back and surveyed narrowly the young man who sat facing her.

"You still expect me to believe that terrible story you told me several hours ago?" she asked.

"All I told you was the truth, Miss Warrington," Erskine answered quietly.

"Had it been true, don't you think my father would have spoken of it—in this?" she asked, slightly raising the telegram she held.

Gazing at the floor, Erskine frowned thoughtfully. "It is just possible that your father does not know," he said.

An expression of incredulity settled on the features of Louise. "He does not know?" she murmured.

"It is possible that he does not," said Erskine, and as he spoke he shifted his gaze to the sobbing mother, who, sitting beside the window, still was holding a handkerchief to her face.

"You have told me that you saw the crime committed," the young woman went on. "If this were true, did you not report the fact to my father—or the police?"

"No. I made no report of the matter to any one. My reason for failing to do this was that I feared that McGrane and I might be detained as witnesses at a time when it was essential we should be elsewhere than in Chicago."

"You knew at that time that I purposed leaving Chicago?"

"No. I have told you that I knew nothing of your purpose in leaving Chicago until I saw you on the train at Wapiti Falls."

"True—true—I remember now," sighed the young woman wearily. "You told me you were seeking—seeking some one else."

"Yes."

"At the time you saw the crime committed, did you know that the man you are seeking now had any intention of coming West?"

"Yes."

"Did you have any reason to suspect the nature of his object in coming out here?"

The face of Erskine grew whiter as he continued to regard his fair interrogator. Was she honest in thus inviting his confidence, or was she working in the interest of Montresor? For a moment he hesitated; then, giving her the benefit of the doubt, he spoke.

"Yes," he answered slowly. "I knew that Montresor was about to start for the State of Washington for the purpose of obtaining possession of stolen property."

Louise started violently, and as with a

little cry she leaned toward him, she clutched the arm of her seat.

"You mean—you mean—you know!" she gasped.

"It was because I knew this that I left the body of your brother on the lake shore in Chicago," Erskine replied. "For the dead I could do nothing more, but for the living there was much to do, and I came West to do it. Immediately after the commission of the crime, the murderer and his companions escaped in a boat. If it is true that the body has not been found, it probably is due to the fact that the murderers succeeded in carrying out their original plan, and, returning to the shore, carried the body out into the lake."

Trembling violently, and almost on the verge of collapse, Louise sank slowly back into her seat, and regarded Erskine with dilated eyes. Her weeping mother appeared to have heard nothing that had been said.

"What was this stolen property of which you speak?" the young woman demanded faintly, after a pause.

And now it was Erskine's turn to hesitate. Louise watched him with an expression in which curiosity and fear were blended.

"It consisted of certain bonds which it was in the interest of your brother to have returned to the place from which they were taken," the Altoona man explained, half-reluctantly.

With a little gasp, Louise Warrington bowed her head and hid her face in her hands. Erskine's face was clearing now. There still was much in connection with the young woman's relations with the affair that baffled him, but he was gradually coming to believe that, in some manner or other, she had been moving in the dark.

Straightening herself suddenly, Louise removed her hands from her face and darted a quick, searching look toward Erskine.

"And it was to try to recover those bonds, and not to spy upon my movements, that you left Chicago?" she asked.

"The recovery of those bonds constitutes my only object in coming West. Had I intended to spy upon your movements, I would have followed you when you left the train at Bernardville."

"You saw me leave the train?"

"Yes. McGrane saw you also, and it was all I could do to prevent him from following you. His intention was not to spy upon you, however, but to save you from the possible influence of the man who had killed your brother."

"And you were willing that I—" the young woman began, and stopped.

Had the situation not been so serious, Erskine would have smiled at the sudden manifestation of feminine unreason. But it was grimly enough that he answered:

"My interest in you was secondary to the purpose of my mission. I was not in a position to allow anything to divert me from my search for the bonds—and Montresor."

Leaning toward him, Louise laid a hand on his knee. "And you think—think that you will be able to get the bonds—before they get into his hands again?" she asked him breathlessly.

"Yes," he answered curtly.

"But how?"

Her voice was piteous, and he was looking into a pair of beautiful, pleading eyes. For a moment his blood was tingling, and his secret trembled on his lips, but in a quiet, calm voice he said:

"I shall succeed, Miss Warrington. That is all I can tell you now."

"But is it not possible that I can help you?"

"I shall need no help."

A stricken look entered the young woman's eyes. "You—you do not trust me!" she exclaimed.

And Erskine answered: "No."

With a little cry, Louise shrank from him, and once more leaned back in her seat and hid her face in her hands. In the attitude of this comparative stranger was a degree of self-mastery that she never had encountered in another man before. Even her father, at times when he was most severe, never had ventured to charge her with duplicity.

A flush of shame colored her cheeks; then, lowering her hands from her face, she turned upon the young man a pair of eyes that were agleam with anger.

She pointed to the door.

"Go!" she commanded in a low, hoarse voice. "It is only to my father that I will take that confidence which I was about to repose in you."

But Erskine, disregarding her command, continued to study the angry woman's face. As Louise looked into the young man's eyes she seemed to quail.

"Well—why do you not go?" she asked breathlessly. "If you will not believe in me, why do you not go?"

The anger that had been blazing in her eyes now gave place to an expression of reproachful inquiry.

"I am trying to believe in you, Miss War-

ington," said Erskine huskily. "But you forget that when—"

He stopped. To the ears of both of them came the sound of a locomotive-whistle, and they knew that the West Coast Express was beginning to move in the direction that had been taken by the Cascade flier.

"But if I tell you—"

There came a sudden thump at the state-room door, then the knob turned quickly, and the door flew open. Into the room rushed a white-faced man, with wildly gleaming eyes. In a moment he had closed the door behind him.

"Miss Warrington—" he began in shaking accents.

But he said no more. His gaze had fallen on the man who was seated opposite the young woman to whom he had spoken. He stiffened suddenly, and recoiled aghast.

Erskine, rising, faced Montresor!

CHAPTER XX.

The Hour of Destiny.

TREMBLING, and leaning against the door, Montresor was the first to speak.

"You!" he gasped, looking at Erskine, with dilated eyes.

"Yes," Erskine answered calmly. "I think we have met before."

Slowly the Englishman shifted his gaze to the face of Louise, who, with a little cry, had half risen from her seat. Her face was pale and cold, but in her eyes was gleaming a light that chilled his blood and caused him to quail before her.

For a moment the man, half dazed, seemed to be on the point of attempting to retreat. He quickly altered his purpose, however, and, reaching behind him, shifted the catch that locked the door.

"I want to speak with you, alone," he said doggedly, to Louise.

"I am under the protection of Mr. Erskine, sir, and will hear nothing from you that may not be said in his presence," the young woman answered in a voice that shook a little.

Montresor, hesitating, darted a malignant glance in Erskine's direction, then allowed his gaze to fall to the floor.

"What is it you wish to say to me?" asked Louise coldly.

"One of your father's agents has traced us to this train," the Englishman replied, speaking with difficulty. "If he finds me, he will place me under arrest. If he does

this it will be impossible for me to keep the promise that I made to you."

Erskine turned to Louise. "What was the nature of that promise, Miss Warrington?" he asked quietly.

"He promised to return to me, in Tacoma, certain bonds, on condition that I became his wife," she murmured.

Erskine nodded grimly. "He has made a promise he cannot keep," he said. "More than this, he has just told you something which I believe to be untrue. I think I am safe in saying that Mr. Warrington has authorized no one to place Mr. Montresor under arrest."

A gleam of hope suddenly lighted the face of the Englishman. "Is not Glen Streyer an agent of Mr. Warrington's?" he demanded eagerly.

And now it was Erskine's turn to start. He remembered that the general manager had told him that Glen Streyer, one of the most efficient detectives in the United States, was working in the interest of Stanwood, the treasurer of the company, and that, at all hazards, the missing bonds must be kept out of his hands.

If Streyer obtained the bonds the complicity of Joseph Warrington in the theft would be established, and the end of Andrew Warrington's career as a railway official would be inevitable. There was a faint expression of anxiety on Erskine's face, therefore, as he asked:

"Is Glen Streyer on this train?"

"Yes—yes, he boarded it at Tyrcone," Montresor faltered.

Once more the Altoona man's heart was in his throat. If Streyer had boarded the train at Tyrcone, he doubtless had learned of the hold-up of the Cascade flier, and that a type-writer box had been taken from the Dale Express car. Was it not probable that, before leaving Chicago, the detective had a clue that had caused him to follow this box, rather than Montresor?

From the duty-bound engineer, or the fireman, he might have learned that the men who had held up the Cascade Limited flier had left the train at Tyrcone. In that event it would be easy for him to infer that the fugitives had planned to take the West Coast Express at that point. Was it not more likely that he was after the men whom he believed to have the box in their possession, than that he should have been diverted from his quest by the pursuit of Montresor?

Now, it seemed to Erskine that it was himself, rather than Montresor, who had

most to fear from this redoubtable detective who had boarded the train. In the stateroom in which he now was standing were the suitcases containing the prize he had struggled so determinedly to win.

Whether Glen Streyer sought him or Montresor, the result was likely to be the same. Montresor's trail and his led to the stateroom in which now sat the sister of Joseph Warrington, the man who was suspected of having taken the missing bonds from the place in which they belonged. And within two feet of where Louise Warrington was sitting were the missing bonds themselves.

Appreciating the danger to which he would be exposed by traveling with the bonds, Montresor had sent them by express. And now Montresor, Miss Warrington, and the bonds were in a small room together, with the cleverest detective in the United States almost at the very door!

In Erskine's mind there was little doubt that the detective had been on the flier at the time it was held up, on the other side of the Dumbbell. Montresor had alighted at Tyrcone, and he probably was in a position to tell whether or not the story of the robbery of the express-car had reached the ears of the other passengers, or those of the men employed in and around the station. But Erskine dared not ask the question.

"What is it, then, that you have come here to ask of Miss Warrington?" Erskine asked, at length.

"To conceal me here until I shall be able to leave the train," replied the desperate man.

"No—no!" gasped Louise, rising.

"But—by Heaven—I'll stay!" the Englishman muttered fiercely.

And, as he spoke, Erskine saw the glint of a revolver in his hand.

In a flash the Altoona man had thrown himself upon the unwelcome intruder. To and fro the strong men swayed, but the unnerved fugitive soon yielded to Erskine's superior strength. After wrenching the revolver from the hand of his adversary, Erskine forced him to his knees.

The struggle ceased. The shriek of fear that had issued from the lips of Mrs. Warrington had been smothered by the hand which her daughter continued to hold over her mouth.

Erskine, white-faced and grim, leaned lower over his adversary.

"Well, Montresor—are you done?" he muttered.

The Englishman struggled weakly, then

his chin sank upon his breast. For a moment the two men were motionless. Erskine, with his gaze resting on the bowed head of the kneeling man, was thinking quickly. Louise and her mother were watching both of them, with horror-stricken eyes.

"And now there is nothing to prevent me from delivering you into the custody of Streyer," Erskine said; then, after a pause, he added: "But if you will do one thing I will give you one more chance to run for it, and I will not follow you."

Montresor looked up surlily. Erskine went on:

"Yes, I will let you go, if, in the presence of these ladies, you tell me what you did with the body of Joseph Warrington—after you killed him."

Still grasping the wrists of the beaten man, Erskine felt him shudder. An expression of great fear settled on his face, and he seemed to be on the verge of collapse.

"Speak!" Erskine commanded roughly. "Which is it to be—confession or arrest?"

"If I tell you, you will keep your word—you will let me go?"

"Yes."

A long pause followed, then Montresor said weakly: "After you were gone, we took it—took the body in a boat, and sank it about two hundred feet outside the breakwater."

Fred glanced toward Louise, who, with an arm around her mother, was looking at him with wide, horrified eyes.

"Near what part of the breakwater?" Erskine asked.

"The left side—going out," replied Montresor.

"Who was with you?"

The eyes of the vanquished man flashed angrily. "I have told you all I promised to tell," he said hoarsely. "You gave me your word that if I told you where we put the body, you would let me go."

Erskine nodded, and drew back. "Go, then," he said.

Montresor rose weakly to his feet. "You will not follow me?" he asked.

"No. I will not cause you to be followed until to-morrow. Clear out."

The Englishman's trembling fingers fumbled with the lock and knob, then the door opened and he passed out stealthily. Scarcely had the door closed behind him, when, with a little despairing cry, Mrs. Warrington fell swooning to the seat from which she had risen. To the elder woman's condition, however, the daughter gave no heed. With a look of bewilderment on her features, she

stepped to Erskine and laid a hand on one of his arms.

"Why did you do this?" she asked him breathlessly. "Why did you let him go?"

Half unconsciously, he took her hand in both of his. "I let him go because it must not be known that he was with us in this room," he said. "I let him go because the bonds we have been seeking are there, and Streyer must not find them."

And, as he spoke, he nodded toward where his two suit-cases stood where he had placed them on the floor. The expression of bewilderment on the features of Louise grew deeper. Following the direction of his glance, she gave a little start. For the first time since she had returned to the stateroom she saw the cases of which he had spoken.

She turned to him again. "You—you mean that you have found them—the bonds that—"

"Yes, Miss Warrington, I have found them."

She looked at him incredulously at first, then the light of a great happiness overspread her face. A moment later she was in tears, and, swaying slightly, she turned from him.

Erskine was about to speak when, from outside the stateroom door, came the sound of a loud, hoarse cry, which was immediately followed by a revolver-shot. Into one of the pockets of his coat he had dropped the revolver he had taken from Montresor, and his fingers now closed around this as he glanced in the direction of the door. For several moments all was still, then a second shot rang in Erskine's ears, and there suddenly flashed across his mind the thought that the voice was that of Barney McGrane!

Quickly disengaging himself from the grasp of the now terrified Louise, the young man rushed to the door and threw it open. The odor of gunpowder entered his nostrils, and from the car came the half-smothered exclamations of the startled occupants of the curtained berths.

Moving forward cautiously, Erskine came at last to the vestibule. There, on one of the platforms, he saw the prostrate figure of a man—motionless and with up-turned face—a face he never had looked upon before! Blood was flowing from a wound in the middle of the forehead, and, as he looked, Erskine knew the man was dead.

"Who is he?" whispered a masculine voice behind him.

Erskine shook his head. But he believed he knew. Deeper and deeper into his mind sank the consciousness of the fact that the

lifeless form at his feet was none other than the body of Glen Streyer, the famous Chicago detective!

But Erskine and the passengers who were now crowding in behind him had little time to meditate upon the identity of the man who lay before them. All were startled by the sound of a second shot which came to them from the rear of the last car—another sleeper—on the train.

As those around him shrank back, Erskine pressed forward. Hurrying into the rear car, he ran along the aisle. Once or twice he came into collision with persons who, in the act of rising, had allowed their heads or feet to protrude from the sides of their berths, but he did not stop.

At last, gripping his revolver, he came to the rear platform of the car. It was empty, and the train was speeding at what he judged to be a rate of fifty miles an hour.

For only a moment did the Altoona man hesitate. A glance showed him that one of the side doors was open. This was sufficient to tell the tale, and, with outstretched hand, he glanced up toward the bell-cord.

This was vibrating in a manner that plainly showed that another hand was jerking at it furiously. The locomotive whistled, there was a hissing of air-pipes and a succession of jolts, and the train slowed down.

In the little party that accompanied the conductor and a brakeman, who jogged back along the track, was Erskine. He made no attempt, however, to outdistance his companions, for he reasoned that, under the circumstances, it would be unwise for him to expose himself to the view of a dying man.

But by and by the conductor halted suddenly, and the lanterns they carried hung ominously over something they had found beside the track. Advancing cautiously, Erskine saw two human figures lying together. They were men, and one, moving weakly, seemed to be trying to tighten his grip on the collar of the other.

In the man who moved Erskine recognized his friend, the Irishman. The man whose twisted neck indicated that he would never move again of his own volition was Montresor.

"He done it," the Irishman was saying weakly. "He snatched a derringer from his pocket and shot the other feller what told him he was wanted. It ain't the first man he killed, neither, for—"

As the conductor bent lower over the speaker, the Irishman, coughing violently, made a vain attempt to rise. Erskine, mov-

ing closer, saw that his lips and chin were flecked with blood.

"He's dead, ain't he?" McGrane asked eagerly, turning to the corpse that lay beside him.

"Yes, he's dead," the conductor answered gravely.

The Irishman was about to speak again, when, seeing Erskine, he motioned to him to draw nearer.

"Is everything all right, sir?" he asked, as the Altoona man knelt down beside him.

"All right, Barney—if we can get you out of this," Erskine replied in a shaking voice.

McGrane shook his head. "It's no use, sir," he said resignedly. "I told you 'tweren't no use in prayin' for the jumps to stop. They just kept comin' and a' comin' till they got me in the end. But Miss—Miss Warrington don't believe that me and you did that thing we was a talkin' about, does she, sir?"

"No, Barney; the whole truth is known to her now. She understands."

"I knew she would. And now it looks as though there weren't no more for me to do or say."

"You must brace up, Barney, while we get you back to the car."

"'Tain't no use, sir—'tain't no use. I'm goin' somewheres faster than any car will take me. I ain't got no more use for cars, and yet—yet there's still one more jump a comin' to me. I'm takin' it now—just like Montresor did, and if I land where he has landed—begobs, we'll have another set-to—in the mornin'."

And though death touched then the stout heart that would beat no more, it left intact the last grim smile that had parted the lips of Barney McGrane.

CHAPTER XXI.

Completing the Task.

THREE days after the death of Montresor and McGrane, Frederick Erskine, crouching behind a large packing-case that was filled with pamphlets, glanced impatiently toward a skylight in the ceiling above him. Each minute found the glass growing darker.

The Altoona man was now in a storeroom in the building in which the general offices of the Chicago, St. Louis and Western Railway Company were located. Thither he had made his way, all unobserved, more than five hours before.

Beside him were a dark lantern and two packages, wrapped in brown paper, which

contained the bonds he had taken from his father's train. One of his thumbs, thrust into a pocket of his vest, touched a folded paper that lay within. The paper was a leaf torn from the Old Testament Book of Proverbs.

Many thoughts occupied the young man's mind as he crouched there alone. For two days he had traveled eastward with Louise and her mother; and, though all of them were moving solemnly in the shadow of a series of appalling tragedies, there had been moments when the young man was conscious of sensations that were more pleasurable than any he ever had experienced before. A beautiful young woman, looking to him as her protector, had given him a full measure of her confidence—a confidence that had annihilated all his darker doubts and fears.

It was a strange story that Louise had told him, but he believed it all. It was at the home of one of the leaders of Chicago society that she had first met Charles Montresor, and it was explained to her that he was the son of a distinguished English nobleman.

Despite his cleverness and other personal attractions, however, she had not been altogether favorably impressed by his manifest attempts to win her favor. It was not until he became a close companion of her brother that she began to think better of him.

It was from Montresor, who posed as a man of wealth, that she first had learned that her brother was in serious trouble. Prior to this Montresor had twice proposed marriage to her, but each time she had told him that she found it impossible to reciprocate his affection.

When, however, he told her that her brother, whom she loved more than any one else in all the world, was suspected of adding crime to his long list of indiscretions, she, flinging her own discretion to the winds, had gone to Mr. Stanwood, the treasurer of the company, and one of the enemies of her father, for corroboration of the story. Stanwood, pitying her distress, had told her only that certain bonds were missing from the office in which her brother was employed.

He had assured her, however, that Joseph still was above suspicion. But Louise was not to be deceived. Suspecting that the situation was more serious than Stanwood had represented it to be, she guardedly questioned her father concerning the missing bonds. This had been the general manager's ground for suspecting that she had obtained the information from her brother's friend, Montresor.

Andrew Warrington, as the result of careful inquiries concerning the young Englishman, had learned that, for some strange reason, he seemed to have no fixed place of habitation, and that he practically had been disowned by his English relatives. More than this, he was reputed to be a card sharp, and no longer found himself a welcome guest at the Chicago clubs which he had been wont to frequent.

Accordingly, the old man had directed his daughter to cut him from her list of acquaintances. This she would have been quite willing to do had it not been for the fact that she had begun to depend on Montresor to aid her in an attempt to shield Joseph from the disaster he had invited.

Her mother, who idolized her son, was Louise's only confidante. Knowing the intolerance of her father for all forms of dishonesty, she dared not reveal to him the nature of her trouble. Such a revelation, she feared, would result in the young man being permanently ostracized from his family, and in the end disinherited.

The bonds of affection between Mrs. Warrington and her children were so strong that neither the mother nor daughter, by letting Joseph know that he was suspected, invited his confidence in the matter. They had planned to save him without allowing him to become aware of the fact that he had exposed himself to the loss of their respect for him.

To this end they encouraged his friendship for Montresor, whom they believed to be acting in good faith as their representative in their efforts to have the bonds restored to the place from which they had been taken. At length Montresor had told Louise that he had obtained a clue to the missing bonds, and he offered to buy them for her through one of his agents in Tacoma.

Overwhelmed by this evidence of the young Englishman's affection for her, Louise had promised that if he should do this she would become his wife. In the meantime Montresor had told the mother and daughter that agents of Andrew Warrington had begun to shadow him night and day, and that also, as a friend of her brother's, he had fallen under suspicion so far as complicity in the theft of the bonds was concerned.

And so it had come to pass that when Erskine was introduced to her she had believed him to be nothing more than a detective hired by her father to spy on her movements and to make trouble for Montresor. She had seen the photograph of the English-

man given by her father to Erskine, and, fearing lest Montresor's arrest would prevent him from setting out for Tacoma on the morrow, she had called him up on the telephone and had informed him of what had taken place.

He had sent to her the cab in which she and the unsuspecting Erskine had left the Warrington house, and, in accordance with Montresor's instructions, had gone to Lincoln Park, where, it was understood, the photograph by which Montresor was to be identified was to be taken from the man to whom Andrew Warrington had given it.

How Montresor came to be in possession of the stolen bonds Louise did not know. She had a theory, however, and Erskine was inclined to accept it. Montresor, disowned by his family, was nothing more than a mere fortune-seeker. Louise Warrington was not only one of the most beautiful women in Chicago society, but her father was reputed to be a millionaire.

Attracted, therefore, no less by her financial prospects than by her personal qualities, the dashing young soldier of fortune was determined to make her his wife. To this end he succeeded in getting her brother in his power.

Whether the bonds were taken on Joseph's initiative, or as a result of the influence which Montresor exercised over him, was a matter for speculation. One thing was certain, however, the bonds speedily found their way into Montresor's possession—probably as a result of the Englishman's promise to raise money on them secretly—a sum sufficient to enable Joseph to continue his reckless course of speculation.

Though it was certain that Montresor had at least two confederates, who were more or less informed concerning his relations with Joseph Warrington and the stolen bonds, these men, being involved in the murder of the son of Andrew Warrington, were scarcely likely to speak of the affair to any one. The lips of Montresor were sealed forever, but before his death he had succeeded in taking the life of Glen Streyer, the only man outside the conspiracy who had appeared to have learned the truth.

Barney McGrane, attracted by the sound of the shot that had killed Streyer, had started in pursuit of the Englishman, and had grappled with him until both had fallen from the train; and thus the only person who was informed concerning all of Erskine's movements on the night the Cascade flier was held up was also silenced.

The only persons who now were in possession of facts that were likely to result in serious trouble for Erskine, or a revelation of the taking of stolen property from the Dale Express-car, were the young man's father and the fireman. It was the course that was to be pursued by his own father that now gave Erskine the greatest concern.

At the time that the Cascade flier had stopped at Tyrcone, he had believed that his father's affection had triumphed over his sense of duty. It was Louise who undeceived him.

Louise had boarded the flier at Bernardville, and it was at her request that the conductor, who knew her and her mother to be the daughter and wife of the general manager of the C., S. L. and W., had directed the engineer to stop at Tyrcone, in order that she might again take possession of her stateroom on the West Coast Express, there being no unoccupied staterooms or berths on the flier.

In reflecting on the conduct of his father, the young man now realized that by representing that the first stop of the train would be at Weatherbee, the engineer had been trying to coerce his son into returning to the baggage-car the property which he had taken from it. The only comfort the young man found in his review of the adventure lay in the fact that his father appeared not to have reported that he had seen the unmasked faces of the men who had held up his train.

Neither did it appear that the fireman had spoken. The newspapers of nearly all the big cities in the United States printed accounts of the hold-up, however; but in view of the fact that only a typewriting machine appeared to have been taken, the theory was expressed that the hold-up had been the result of a wager.

While it was known that Montresor had killed Glen Streyer in order to escape arrest, the precise nature of the Englishman's offense remained a mystery. McGrane was reported to be the family coachman of the Warringtons, who was accompanying Mrs. Warrington on a trip they had been taking to the West, and who, upon seeing Streyer shot down, had sacrificed his life in an attempt to prevent the escape of the assassin.

In the presence of Louise and her mother, Erskine had compelled Montresor to confess that he had sunk the body of Joseph Warrington in Lake Michigan, just outside the breakwater at Chicago. While this confession had been sufficient to convince the two women that the Altoona man had spoken the

truth, circumstances proved that it was unnecessary, so far as the recovery of the murdered man's body was concerned.

At the time the confession was made, the waters of the lake already had given up their dead, and now the young man's body was in its tomb. The body of honest Barney McGrane, now on its way from the West, would be buried on the morrow.

Darker and darker grew the skylight under which the young man lay awaiting the hour which should witness the completion of the formidable task which, only six days before, he had undertaken.

Since his return to Chicago he had made no attempt to see or communicate with Andrew Warrington, and from Louise he had exacted a promise that until his work was done she would not reveal to her father the fact that she had met him in the West. She had kept that promise.

The afflicted father, knowing that Louise and her mother had been on the train from which Montresor had fallen with McGrane, doubted not that his daughter, accompanied by her mother, had gone West to wed the man against whom he had warned her. But, satisfied that all was over, he asked no questions. He had folded her in his arms; then he had led her to the room in which lay his murdered son.

It was after midnight when Erskine, rising from behind the box in the storeroom, stealthily began to make his way in the direction of the office in which the treasurer's big safe was located. Concealed under a desk in another apartment, he waited until the watchman made his hourly round, then he entered the treasurer's office.

Screened by a cloth which he had carried with him, he turned the light of his dark lantern on the lock of the vault-door. Then, carefully, but with a slightly shaking hand, he turned backward and forward the knob that controlled the indicator which pointed to the numerals and letter on the dial; and, as he worked, he seemed to hear the dying voice of Joseph Warrington repeating the figures and words.

The indicator had pointed to the numerals 2689, when Erskine paused and unfolded the page he had carried in the pocket of his vest, and, for the last time, he studied the last two verses of the fifth chapter of the Book of Proverbs; then, with the indicator, he spelled out the words on the little dial:

His own iniquities shall take the wicked himself, and he shall be holden with the cords of his sins.

He shall die without instruction; and in the greatness of his folly he shall go astray.

This done, he turned the indicator to the numerals 19047. With a rapidly beating heart, Erskine now attempted to draw toward him the great steel door of the vault. It moved.

CHAPTER XXII.

The Lost Bonds.

ON the morning of the day following Erskine's visit to the vault, Andrew Warrington, sitting alone in the library of his residence, was approached by his butler, who timidly informed him that a visitor had called to see him. The general manager, looking at the servant vacantly, failed to catch the name.

"Who is it?" he asked irritably.

"A man who says his name is Erskine, sir," the butler answered.

The general manager started slightly, frowned, and nervously tapped on the arms of his chair. After a moment's hesitation, he said surlily:

"Well, bring him in."

When the servant left the room, Andrew Warrington, leaning forward, hid his face in his hands. The whole world was dark to him now, and he felt that he sat alone with dishonor.

Scarcely had Fred Erskine left his office, on the week before, when the general manager realized that he had been guilty of an act of folly in asking him to undertake such a formidable quest. He had acted only on the inspiration of the moment, and had allowed himself to be too greatly influenced by the self-reliant aspect of this son of his old friend.

When Erskine's note had informed him that the young man had been attacked and overcome by the man whom he had been instructed to watch, he sent him another thousand dollars, but he had not the slightest hope that anything of a favorable nature would result from the quest. Since then, Erskine had seldom entered his thoughts.

Now, when the butler announced the name of the visitor, the broken-spirited old man resolved that he would take advantage of this opportunity to bid the young Altoona man to cease his efforts. Financial, as well as official, ruin stared him in the face, and he knew that his career was done.

So absorbed was he in painful reveries

that he did not hear the visitor enter the room. At length, however, a hand, falling on his shoulder, put his thoughts to flight, and as he turned his head he heard a voice.

"I'm sorry, Andy—sorry that you lost the lad."

And a moment later his hand was in the horny grasp of Sam Erskine, the old engineer.

"Oh, Sam, it's you!" Warrington exclaimed, rising and shaking the hand of his old friend.

"Yes, Andy," the other answered, with a sigh. "It's me, and I know this ain't a time for words. I ain't a goin' to stay long. I was in Chicago, and just dropped in. I knew you'd know how sorry I'd be when I heard you'd lost your boy. It wasn't necessary for me to come here to tell you that, but—but—"

The old man hesitated and looked thoughtfully toward one of the windows. "Sam," sighed Warrington, "you're looking old."

The engineer nodded. "Yes, Andy, and I'm feelin' older than I look. That's why I'm goin' to send in my resignation to-day."

The general manager looked at him sharply. "You're going to resign! No, no, Sam, it's not as bad as that, I hope. You are not so old that you are not good for many a long run yet."

"I'm out of the runnin' now, Andy—all out of it now," the old man replied in a choking voice.

Warrington laid a hand on the old man's arm.

"What's the trouble, Sam?" he asked, looking at the other anxiously.

"We've all got our troubles, old friend, I suppose," the engineer replied, then his voice broke, and sobbing like a child, he added: "But—but—God pity me, I've lost my boy!"

Warrington led him to a chair and urged him to sit down.

"You've lost your boy!" he repeated incredulously. "No, no, you must not tell me that."

"He's not dead, Andy—it is worse than that. Three nights ago, with a black mask on his face, he held up my train, just this side of the Dumbbell, out in Washington!"

The general manager, recoiling a step, looked at him with an expression of amazement.

"Three nights ago—out in Washington," he muttered.

"Yes."

"But why?"

"He told me when we recognized each other—"

"You are sure it was Fred?"

"Yes, Andy—it was Fred—my boy. He was with me for an hour."

Warrington's face grew livid. It was in the State of Washington that Montresor had come to his death. It was from Washington that Louise and her mother had just returned!

"But—why—in God's name, why?" Warrington demanded impatiently, and, as he spoke perspiration began to gather on his forehead.

"He told me that what he took from the express-car was stolen property—that—that he was to return it to the rightful owner, but—"

"Did he get it—get away with it?" the general manager asked breathlessly, gripping the arm of the engineer.

Sam Erskine looked at him wonderingly.

"Yes," he said. "I run the signal of my conscience, and let him get away from me at Tyrcone. And that, Andy, is why I'll never lay my hand on a throttle again."

"Tyrcone!"

Andrew Warrington was trembling like a leaf in the wind. It was just beyond Tyrcone that Montresor had fallen from the train! Was it possible that, after all—

Once more the butler crossed the threshold, coughed slightly and approached his master. "Another Mr. Erskine, sir," the man explained, and, as he spoke, he held out a card.

The general manager took the card abstractedly. The words of the butler had failed to reach his ears. Then, suddenly, he became conscious of the fact that the name that was dancing before his eyes was "Mr. Frederick Erskine."

He turned his livid face to the butler, but he could not speak. He nodded, and the servant left him. Leaning on the top of a chair, he watched the door through which the servant left the room.

In a few moments Fred Erskine, walking quickly, appeared in the doorway. Something distracted the young man's attention and he turned and smilingly addressed some one in the hall.

With an exclamation of astonishment, the old engineer rose quickly and tottered forward. From the hall there came a little joyous cry, and immediately afterward, Louise, gowned in black, rushed to the stalwart man who stood upon the threshold,

and, placing her hands upon his shoulders, fell, sobbing, on his bosom. As Erskine slipped an arm around her waist his face was shining.

Turning to where Warrington, with a corpse-like face, was standing, he said quietly:

"They are in the vault, sir, and no one will know who put them there."

And then he saw his father!

Breathing heavily, Warrington, with dry lips, addressed the young man at the door.

"You—you mean that you placed them there yourself—without aid from others?" he asked in a cracked and husky voice.

"Yes," the young man answered gravely.

"When?"

"At midnight."

"But—but how—how—"

"I got the combination from the lips of a dying man who was more sinned against, perhaps, than sinning—a man who came to his death at the hands of Montresor, and whose body was afterward sunk in the lake."

As the chin of Andrew Warrington sank upon his breast, Sam Erskine clutched his arm. The old engineer was looking out toward the doorway, with wide, wondering eyes.

"Andy—Andy!" he gasped. "Is that your girl?"

Slowly raising his head, the general manager saw them—Fred Erskine and Louise. They were standing side by side, and holding hands. The general manager nodded.

"Yes, Sam, she's mine, and would to God the boy who stands beside her was her brother," he answered solemnly. "But though he is your son, he must be mine, as well. He must take the place of the boy that I have lost."

Again the old engineer clutched the speaker's sleeve.

"But, Andy, you—you forget what I was tellin' you when he came in," Sam Erskine protested, in quavering accents. "You forget I told you that out in Washington—"

"No, Sam, I don't forget," the general manager answered wearily. "But I have learned enough to know that somewhere out in the State of Washington your son was the champion of the honor of my family, and that he won his fight."

"If he wore a black mask on the night you saw him in your cab, he wore it honestly, and in my interest, rather than his own. And you, old friend, must have a care. This old world of ours plays strange

tricks on us sometimes, and a father should beware, lest he misjudge his son."

"You know then—" the engineer began.

Warrington slipped an arm around his old friend's shoulders. "Yes, Andy, I know that your son, so far from being guilty of any wrongdoing, was acting the part of a hero on the night that you mistook him for a bandit," he said. "I know much that never will be made clear to you, and yet, as things are going now, there is much that I still fail to understand."

"All will be explained to me, I know, but until that explanation comes, I will suspect that it is partly by the efforts of your son that I have regained the daughter whom I feared was lost."

Within an hour he had the explanation from the lips of Louise, who told him of the sacrifice she had meditated in order to save the honor of the family name. While she was telling him her story, her father lovingly caressed her hands, but when she spoke of the part that Fred Erskine had played in the affair the light that illumined her eyes brought to the old man's lips the first smile that had rested there for many days.

Louise saw the smile, and her face grew crimson. Her father, however, nodded contentedly, and stroked her hair.

"It is well, Louise," he said reassuringly. "You like him. I would have it so."

And so it came to pass that the story of the lost bonds was never told. How the bonds were taken, and by whom, the few persons who were aware of their disappearance never knew. To President Burbridge, Stanwood, the treasurer, reported that they were found, and the information was conveyed by Burbridge himself to the general manager.

Owing to the death of Joseph Warrington, several days before, it was known that he could not have returned them, and yet the secret of the combination of the vault was supposed to be in the possession only of Stanwood and young Warrington. The combination was altered without delay, but the manner in which the bonds had been restored always remained a mystery.

Warrington succeeded Burbridge as president of the road, and shortly after his elevation to this office, the engagement of Louise to the assistant superintendent of motive power of the road was announced.

The assistant superintendent of motive power was Frederick Erskine.



The Railroad Man's Brain Teasers.

Puzzling Problems that Promote Patience and Propagate a
Propensity for Practical Proportion.

MR. HARRY L. PRATT, Port Henry, New York, sends in the following to corrugate our crown-sheets:

(1.) A train bound for Montreal, Canada, leaves Albany, New York, at 7 A.M., and travels at the rate of 60 miles an hour. A like train, bound for Albany, New York, leaves Montreal, Canada, at 9 A.M., and travels at the rate of 40 miles an hour. Which train will be the farthest away from Albany when they meet?

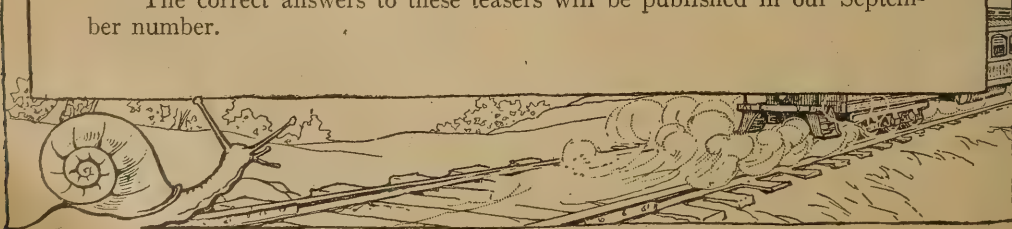
From Mr. O. W. Rowland, Paw Paw, Michigan, we have received the following:

(2.) A freight and a flier are on the same track, going in the same direction, freight ahead, flier following. The freight is making 10 miles per hour, the flier 60. At a certain point rear end of freight, A, is just 50 miles from front end of flier. How far will the freight have traveled when front end of flier is exactly half-way between point A and rear end of freight?

Also, this one from Mr. F. W. Haskell, president of the Carborundum Company, Niagara Falls, New York:

(3.) A railroad train, after traveling for one hour, meets with an accident which delays it one hour, after which it proceeds at three-fifths of its former rate of speed and arrives at the terminus 3 hours behind time. Had the accident occurred 50 miles farther on, the train would have arrived 1 hour and 20 minutes sooner. What is the length of the line, and what was the original rate of speed of the train?

The correct answers to these teasers will be published in our September number.



ON THE EDITORIAL CARPET.

The Eagle Eye Fixes Up a Few Pounds, Knocks, and Steam-Blows, and Gets Called On the Carpet Himself.

OUR fast freight for September is keeping the switching crews busy at present, but we'll have no trouble getting made up by the time the con is ready to give us the high-ball, and we expect to pull out of the yards on time to the second. There's not a flat or a gondola in the whole train, and every wheel in the stretch, from the big Mallet up ahead, to the little red caboose at the end, is under a brand-new standard box car, equipped with automatic coupler and air, and you won't find a single empty in the whole train.

They are all piled solid to the roof with the kind of freight that will keep without cold storage, and stand any amount of rough handling without developing a blemish.

Just run over a few of the waybills with us to get a line on the merchandise we are carrying, and if it doesn't make you want to climb aboard our string of side-door Pullmans we're very much inclined to miss our guess.

Among the fiction that is routed over the airline to success, "Coffin Varnish," by Cy Warman, is a rattling good yarn and a sure winner. It proves that the sobriquet for spirituous liquors is by no means a misnomer.

"The Goat Degree," by our old friend, Augustus Wittfeld, another railroad mystery successfully unraveled by the famous detective, "Carlock Bjones," will keep the laughter valve wide open. It is a worthy sequel to "The Gold Coupler," which we printed in July.

It is not hard to believe sometimes that a locomotive has a soul of its own, and the weird pranks of "Old Kate" in "The Engine's Leap," by Merritt Crawford, are apt to appeal to some of us who have seen with our own eyes the peculiar traits of a big iron horse.

"A Corner in Coyotes," by R. E. Culver, is another story that is well out of the ordinary, and "Billy's Unavoidable Delays," by George Foxhall, is also close to the highwater mark.

But we have almost forgotten the finest car-load in the whole train; one that won't get lost or sidetracked no matter how long her trip may be. We refer to the new serial, "On Short Time," by Horace Herr, author of "The Evolution of Almost," and "Being a Boomer Brakeman." It is a stirring story of Western railroad life, and deals with mighty undertakings and a hard-fought battle for love and fame, and it is told in Mr. Herr's most humorous vein. Keep your eye peeled for it if you don't want to miss one of the best railroad serials ever published.

Did you ever stop to realize that only a short

while ago a wave of popularity for the narrow-gage road swept over the country, and the railroads in every State began to spike their rails closer, only to separate them again a little later when the standard gage was adopted.

C. F. Carter, whose special articles in *THE RAILROAD MAN'S MAGAZINE* are familiar to all our readers, gives us some interesting data on this subject in "The Riddle of the Gages," which will be published next month. Mr. Carter has been delving into railroad history, and has secured a lot of inside information on the evolution of the standard width of track.

Arno Dosch will give us an idea of the peculiar manner in which some of the biggest lines in this country came to be evolved. There are too many dreamers in this day and generation who are content to dream on and do nothing—but not so with these persistent geniuses of Mr. Dosch's collection. They were bent on making their dreams come true, and in the struggle toward that end have brought to themselves the honor and credit of having paved the way for the success of our modern railroads.

"The Old-Timer Tales" have not run out, and our September number will contain some reminiscences of the first great railroad detective, Allan Pinkerton, and the valuable services he rendered the Lake Shore in running to earth a number of skillful train-wreckers.

Walter Gardner Seaver is with us again with the second instalment of his lively series, "Told in the Roundhouse." The tales are better than ever, and contain new phases of life on a division that will make you sit up and take notice.

It's going to be a pretty heavy train, but our steam-gage shows plenty of pressure, and we don't intend to be bothered by flat wheels or loose couplings, so be ready to swing aboard when we pull out.

Get her hot for the September hill!



TO FIGHT FIRES.

SECRETARY WILSON has recently signed a memorandum of agreement with the Great Northern Railway Company, and also one with the Northern Pacific Railway Company, which provides for cooperation of the forest service and the railroads to prevent damage to the national forests from fires along all lines operated by these railroads. These agreements had already been signed by R. I. Farrington, vice-president of the Great Northern, and Howard Elliott, president of the

Northern Pacific, so that they are, by the signature of the Secretary of Agriculture, now in force.

The companies agree to clear and keep clear of inflammable material a strip of varying width as conditions may demand, up to two hundred feet beyond the right-of-way, and to provide all locomotives which do not burn oil with suitable spark arresters and other standard equipment to prevent the dropping of fire. The protective strip is to be designated jointly by representatives of the railroad and the forest service.

In fighting fires the railroads and the forest service will cooperate closely. Prompt notification to forest officers of all fires discovered by employees of the railroads is provided for. Telephone lines to make this possible will be put up by the forest service, using the companies' poles where this is desirable. Warning whistles will be sounded by locomotives on occasion.

Forces of fire-fighters will be assembled on the outbreak of fires, made up of forest officers, railroad employees, and such temporary labor as can be gathered by either. Except for salaries of regular employees, the cost of fighting fires which start within two hundred feet of the railroads will be borne by the companies, and all others by the forest service, unless it shall be shown in the first case that the railroads were not responsible, or, in the second case, that they were responsible for the outbreak of the fire.

The agreement provides that the forest service will regularly patrol the rights-of-way during the fire season. The work of clearing the strips satisfactorily, including disposal of all slash and refuse, is to be performed by the railroads under the supervision of the forest service.

Since the courts have sustained the right of the Department of Agriculture to collect damages from railroads running through national forests for fires which they cause, there is in this fact a strong inducement for railroad companies to join with the department in the effort to keep fires down; but other reasons are doubtless potent, and perhaps the most potent ones, in favor of this agreement.

The Northern Pacific, being a land-grant railroad, owns a great amount of timber on the alternate sections along its line. The Great Northern, although it is not a land-grant road, also has property at stake in its buildings and the line itself, operation of which may be seriously interfered with by forest conflagrations. The value of heavy timber in mountainous regions as a deterrent to avalanches, landslides, and floods is also to be considered. But, from the standpoint of a far-sighted business policy, a still broader argument is the relation of the forests to the general welfare of the regions whose traffic the railroads handle.

MR. YOUNG'S WORK-REPORT.

WE have always wanted to print the poem known as "Engine 2615," and are indebted to the author, Mr. Charles S. Young, of Wynne, Arkansas, for the copy which is appended.

This poem is the copy of a work-report turned in

by Mr. Young at Helena, Arkansas, some years ago, when he was an engineer of the I., M. and S. Of course, he was disciplined by the m. m., but all that is past and a matter of history, and we are mighty glad to have this opportunity to add Mr. Young's poem to the many remarkable railroad documents in verse which have made such pleasant reading in *The Carpet*:

ENGINE, 2615.

MR. FOREMAN, I herewith hand you a report,
The only one really of its kind or sort,
On the famous engine "2615,"
In condition, about the worst ever seen.

She is one of these faithful kind, as you well know—
But 'tis a shame the way the pistons blow.
Wash out the boiler. Bore out the flues.
Of course this clause, to you, is not news.

The flues are squirting; caulk all the leaks,
Driving-boxes all so dry they squeak,
Steam-pipes leaking, pack throttle well,
Both main pins cut, and run hotter than —.

All rod bushings loose on both sides,
Set up the wedges, line up the guides,
Air-pump jerks on both strokes,
Examine the valves and see if they are broke.

Take down the main rods, reduce the brass;
Above all, be sure to put in a water-glass,
Raise the draft-sheet a notch or more,
Fix the latch on the fire-box door.

I think from the way she cuts her fire,
The petticoat pipe should be a little higher.
The lagging all gone off the boiler-head,
Actually, it would roast a being, alive or dead.

Clean out the lubricator—neither side will feed—
I think from the condition, a new one she needs,
Clean the brake-valve, shorten the brake rods,
For when you want to stop, just trust in God.

When on her I step, to take my place—
Although nervy I'm claimed, fear is shown on my face—

For just one look at her, a history is known,
For the effects of many a hard trip is shown.

Nervous men should never ride this "gine,"
For every move they would think it their time;
For the cab is really a traveling trapeze,
One cannot ride in it and feel at ease.

Springs all broken, engine riding on frame,
Really, of this eng. the company is ashamed.
What else is to be repaired, I shall not say,
For what is reported will not be done for many a day.

I have been with her for the past ten days.
Of handling an engine without brakes, I've learned many ways.

When I took her I was both young and gay—
Now my nerves are shattered and I'm almost gray.

For every move I make with her I expect a rod
To fly off and put my soul in the hands of God,
To see while working steam is out of the question,
I guess 'tis good for me I believe in predestination.

So, take pity on a being with a conscience and a heart,
 Send a man to relieve me, for I was all in from the start;
 Regards to yourself, engine, and crew,
 If you will give me a pass home, I'll skidoo.

SKY-ROCKET RED.



SORRY WE CAN'T HELP.

WHILE we have announced in these columns on several occasions that we are *not* in a position to offer advice to those seeking railroad jobs, nevertheless, we are constantly in receipt of letters of which the following is a good example:

EDITOR, THE RAILROAD MAN'S MAGAZINE:

On what road would you advise a young man to start firing and get steady work?—H. G. W.

We would be very glad to furnish information of this character to applicants for positions, but, unfortunately, we are *absolutely unable to do so*. As success in railroading, as well as in any other field, depends solely on the thoroughness, application, and reliability of the man in question, we can only advise H. G. W., and the scores of others who have written us, that they will very likely have no trouble securing and holding a job on any railroad if they cultivate these very desirable qualities.

As for going further to tell him what railroad would be the best to apply to, we must ask our readers to be merciful to us in this respect, as our time is taken up with editing a magazine rather than running an employment agency, and we are unable to keep in touch with questions of this sort. Therefore, we must again say to those who write to us inquiring what roads need firemen, brakemen, and other employees, not to seek our advice, as we will be unable to be of assistance.

We recently received a letter in which the writer said, "I have been running a donkey-engine for six years, and would like to know where I can get a position to run a locomotive. I am fully able." We replied in our most courteous manner that we doubted if our correspondent were capable, and told him something of the requirements of running a locomotive. His reply was:

"You don't know what I can do. You ought to be painting a house."

May be. Who knows!



WOULD PAY FIFTY CENTS A COPY.

THE following letter is from an old railroad man down in Louisiana. It is the kind that we like to receive, and we wish that more of you boys would get down off the box-seat now and then and throw a few coals in our fire-box. Can any of you send in the complete words of the song for which our friend asks? We would like to publish them.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

In the June number of THE RAILROAD MAN'S MAGAZINE, I came across an article, "Heraldry of

the Railroads," giving the history of the Northern Pacific emblem. I have been in the engine service of the N. P., and always understood that the N. P. emblem represented two whales.

I also want to go after Mr. Robert H. Rogers. In his "The Roundhouse Foreman," I think old Pete Yeager put one over on the Old Man when he got him to put a piece of gas-pipe in the smoke-stack to split the fog. I have had the same thing done on soft-coal engines, only I used a bolt for the same purpose and got results. I have also had what they call a bridge inserted in the nozzle on single-exhaust nozzle engines. I have also stuck the plugging-bar down the smoke-stack and into the nozzle when an engine would blow the bridge out. This was on the old-style nozzle engines, but the article on the Roundhouse Foreman was O. K. That gentleman does have a few troubles of his own.

I have been reading THE RAILROAD MAN'S MAGAZINE for years now it seems, and pay fifteen cents a copy for it. I have to get it from the butchers on the passenger-train in this neck of the woods, but I would pay fifty cents a copy before I would miss one number.

I am going to ask for the remainder of a song. I do not know the title of it, but one verse of it runs:

Always together in sunshine or rain,
 Always together on top of the train;
 Away o'er the meadows,
 Along 'neath the stars,
 We're always together on top of the cars.

J. J. B., Pickering, La.



ANOTHER OLD SONG.

SO many of our readers have asked for the words of "The Montreal Express" that we are more than glad to be able to present them in full in this number. The correct name of the old poem is

SONG OF THE VERMONT DISASTER.

In our country, far and near, each day we read or hear

Of shocking accidents on land or sea;
 Your attention now I'll call to the latest of them all—

The Central Vermont Railway tragedy.

It was the Montreal Express, it was speeding at its best,

When near the Woodstock Bridge it struck a broken rail,

And with a fearful crash, down the dark abyss it dashed,

And few survived to tell the awful tale.

'Twas in the dead of night, no one can paint that sight:

Sleeping-cars were filled with living freight,
 This ill-fated train was dashed to the river with a crash,

And a hundred souls went down to meet their fate.

The wreck was soon ablaze, horror met the victims' gaze,

And their frantic cries for help were sad to hear.
 None responded to their call, they must have perished one and all,

Alas! kind friend, no help for them was near.

'Tis shocking to relate, 'tis sad to contemplate,
No one can paint a picture of that sight;
Little they dreamed that death was nigh, when they
bade their friends good-by,
Ere leaving home upon that fatal night.

There is one who'll not forget, that is little Joe
Megrett,

Who was with his father on that fatal train.
Though wounded by his fall, when he heard his
father's call,
To free him from the wreck he tried in vain.

"'Tis no use, my boy," said he, "there is no help
for me,"

And then the burning flames around him curled;
Little Joe began to cry when his father said
"Good-by,
We will meet again up in another world."

WAGES ADVANCE \$100,000,000.

THE railway wage advances, already made or to be made before the end of the year, are now estimated at \$100,000,000 for the entire country. This is the figure given by President Brown, of the New York Central. It includes, of course, many advances the details of which have not yet been settled.

Calculated on the Interstate Commerce Commission statistics as a basis, the wages paid to railway employees, under the new scale, will amount to \$1,227,233,000 a year. This is arrived at by estimating the operating expenses of the present fiscal year from the monthly reports now available; applying the percentage of labor cost to total operating expenses in 1908, the latest year for which wage figures have been published; and adding the \$100,000,000 estimated advance in wages this year.

The \$1,227,233,000 which, it is estimated, will be paid out to employees annually under the new scale, compares with \$1,072,386,000 in the fiscal year 1907, the year which holds the record for the volume of railway business.

Wages on the railroads were not reduced after the 1907 panic, so, that this year's advances are on top of those which were made in 1906, and the early part of 1907. The proportion of labor cost to total operating expenses has increased steadily for several years.

HELP TO SAVE THE OLD SONGS.

HERE'S another call for songs, boys, all the old ones you can remember; songs of the rail, or any other variety you may have come across, but particularly the ones that you have heard but never seen in print. Wouldn't it be a shame if all the good old songs that have sprung from the hearts of our fathers and contain so much of the spirit of the pioneers and the civilizing romance of a new continent should be lost and forgotten?

This is the way they feel about it at Harvard University, and John A. Lomax, associate professor of English in the Agricultural and Mechanical College of Texas, has asked us to help him in his work

of collecting and preserving American ballads and folk-songs which he is carrying on as a Sheldon Fellow of Harvard University.

Professor Lomax hopes that a number of the readers of THE RAILROAD MAN'S MAGAZINE will be interested enough in the preservation of the old folk-songs to write out whatever verses they may remember and mail them to him at College Station, Texas. He will be very grateful for all contributions, and will see that they are carefully preserved and published.

• WILLING TO STEAL IT.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

I AM a constant reader of THE RAILROAD MAN'S MAGAZINE. I have run across a little mistake which, I think, is out of reason. I have handled some railroad material myself and never saw a keg of bolts for use in connecting rails together that would weigh one ton. Under the head of "What's In a Railroad" in the June number you say, "twelve kegs of bolts weigh twelve tons." This is not a kick on the magazine, understand, but I have been wanting to write to you for some time to let you know that somebody in this town is alive.

I remember one story you had about railroad thieves working in and out of St. Joseph, and I happen to know that that is true. I started reading THE RAILROAD MAN'S MAGAZINE before I worked on a railroad, and I think I will read it as long as I can buy, borrow, or steal it.

A ST. JOSEPH BOOSTER.

SPEED.

TO I. S., Fishkill Landing, New York, we send our thanks for this old poem. It's a bit out-of-date now, but may be one of our many railroad poets can write something that will describe modern speed quite as well:

TWENTY MINUTES LATE.

THE twain at last have struck their gait—

The engine and the engineer;

"The train is twenty minutes late!"

The smutty fireman gives a cheer.

He lets her out in giant strides;

She thrusts her slender arms of steel

Deep in the caskets at her sides;

The nervous creature seems to feel

For something precious hidden there;

Plucks out great handfuls of the power

That gives her sixty miles an hour;

And flings and tosses everywhere

Great volumes of the power asleep,

As if a million fleecy sheep

Turned out to pasture in the air.

With glittering elbows' ceaseless play,

She brightens night and darkens day.

"She buckles bully to the work;

She's not the kind of girl to shirk,"

The driver says, and tries the gage,

And never dreams he leads the age.

Full seventy feet at a single plunge,

And seventy feet at a single breath,

And seventy feet from instant death!

A little slower than the lunge

The lightning makes that stabs the night,
And faster than a falcon's flight.
'Tis seventy feet at every beat
Of heart and clock the train is hurled;
At such a rate, with such a mate,
Not eighteen days around the world!

Indianapolis Journal.

WILL "D. P." PLEASE WRITE.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

WOULD you be kind enough to give me the address of "D. P.," who signs up for "The General" again, in your June issue?

My father, Francis Donahue, was in engine service in the vicinity of Chattanooga during Civil War times, and was captured with train, crew, engine, and all, by the Confederate soldiers.

At this date, though late, I am anxious to learn some of the facts, and for that reason wish to correspond with "D. P.," or any one else in a position to give me information.

PHIL J. DONOHUE,
General Delivery, Amarillo, Texas.

A SEVENTY-MILE STRETCH.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

IN the June issue of THE RAILROAD MAN'S MAGAZINE, Light of the Lantern department, you mention quite a number of long stretches of straight track, but, as there is no mention of the track from Dalhart, Texas, to Guymon, Oklahoma—a distance of seventy miles straight track on the Rock Island lines—I thought I would call your attention to it. I am employed at this division point of the Rock Island, as a locomotive engineer. The country is a rolling one, but there is one place where you can see an electric headlight a distance of about thirty-five miles. I am a constant reader of your magazine, and enjoy it very much, and think it fills the bill.—C. S. E., Dalhart, Texas.

THAT IS OUR BELIEF, TOO.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

IN reading your June issue, I find a very interesting article headed, "With the Veterans on the Erie." I am interested in the article because many of the old-timers spoken of are well and kindly remembered by me, and it takes me back to the days when I, too, was one of the old Erie's men.

But there is one part of your article to which I take exception, and that is where you refer to the late Superintendent E. O. Hill as the "fighting superintendent." This is misleading. There never lived a more kind-hearted, sympathetic man than E. O. Hill. He was a strict disciplinarian—and where will you find a successful man of large affairs who is not?—but as a fighter, no, except as for the rights of humanity.

His motto was, like Davy Crockett's, "Be sure you're right, then go ahead."

He believed that the old men were better and more capable than new men. Few men were discharged by him, and after sufficient time had elapsed for proper discipline they were taken back.

They then proved by their faithful service that the judgment of Superintendent Hill was correct.

Inquiry among the old-timers will bring out many cases which will bear out my assertion that no man was ever held in greater respect by the men under his command, or who had greater sympathy for them in their misfortunes.

I speak feelingly in this matter, for the reason that E. O. Hill was my father, and a more kind and indulgent parent never lived. He was a silent man, having little to say, and that to the point, but the kindness of his motives were never questioned.

F. W. HILL,
Fairmount, W. Va.

WHERE "19" IS USED.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

IN your June number, A. B. K., Clinton, Iowa, asks, "Are there any roads that use '19' orders altogether, with some additional safeguards?"

You answer that you don't know of any. I wish to say that I have worked here on the Utah division of the U. P., as brakeman, since the middle of March, and in that time I have seen but one "31" order. They have a schedule "31" order, but, with the one exception, I have spoken of, the "31" is invariably crossed out and "19" substituted.

The U. P., as you probably know, is protected on its main line by automatic block signals on both single and double track.

If this is any value to A. B. K., he is welcome to the information.

AN APPRECIATIVE READER,
Rawlins, Wyoming.

MALLETS ON THE N. P.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

IN your reply to question of "G. H.," Miles City, Montana, on page 125, June issue of THE RAILROAD MAN'S MAGAZINE, you state that your records do not indicate any Mallet compound locomotives on the Northern Pacific Railroad.

Two or three years ago the Baldwin Locomotive Works built sixteen locomotives for the Northern Pacific Railway, which are practically duplicates of the large Mallet engines in use on the Great Northern Railway. These Northern Pacific engines weigh 351,000 pounds in working order, with 313,500 pounds on driving-wheels, and, with eight-thousand-gallon tenders, weigh two hundred and fifty tons.

I am unable to say as to whether or not any additional locomotives of this type have been built for the above-mentioned road.—C. D. W., East Cleveland, Ohio.

FROM AN OLD-TIMER.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

IF you could, I would like you to publish something about the early days of the Rock Island, on the Illinois division. I was there when they had the old link-and-pin, and there were no air-brakes. Among the men of those days were Theodore Milar, S. Gifford, Buffalo Bill, Jim Lucas, and Rock Island Pat. On the right-hand side of the cab were Daddy Hamilton, James George, Al Dick-

erson, and many others I cannot recall at present. In those days they had a number of engines, some good for twelve or fifteen loads.

Two of these engines were silver-mounted, bell and all, and they were the pride of Mr. Cable and his able assistants. There was no double track in those days, Rock Island was the end of the road, and, some people thought, the end of the world. The split-switch was not thought of, and it was necessary at times to take the coal-pick and pound the ends of the rails over to make a siding.

OLD-TIMER, Denison, Texas.

SAW No. 12345.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

Some time ago you published an article from one of your contributors mentioning the fact that he had been looking for a car with the numbers running from one to five, but had failed. Since then I have watched to see how soon I could spot one. To-day (May 23, 1910) at 2.32 P.M. in Savannah, Georgia, No. 34, there was an Illinois Central numbered 12345. If you want to follow it in its course for a time you can do so.

H. B. MEYERS, Operator,
Macon, Georgia.

DEATH ON THE RAIL; OR, MCCARTHY'S LAST RIDE.

(One of the old poems for which we have had many requests.)

MID the terrible booming of thunder,
Sharp lightning and deluge of rain,
Came the tidings of death and disaster
To Carlton's ill-fated train;
Where the wind's sudden raise in its fury
Soon blew in a merciless gale,
And sent flying along from the siding
A car to spread death on the rail.

'Twas a night when bravest might falter,
With heart-stricken fear and despair,
For it seemed as if legions of demons
Were out and at war with the air;
But the tide of humanity flowing
O'ercame every feeling of fright,
In the rescuing party who labored
So bravely that terrible night.

A sight that will ne'er be forgotten
While reason presides in the brain,
To behold all the dead and the dying
Who rode on that ill-fated train.

Heaven pity them all! Here's one other,
Whose equals on earth were but few;
He's my noble professional brother,
Who proved what a brave man can do.

All the newspapers called him a hero,
Who bravely met death at his post;
Ah, yes! He remained on his engine
While others turned white as a ghost.
Not a selfish thought entered his bosom,
He stood on the foot-board resigned,
With the lever reversed in the quadrant,
To save the three hundred behind.

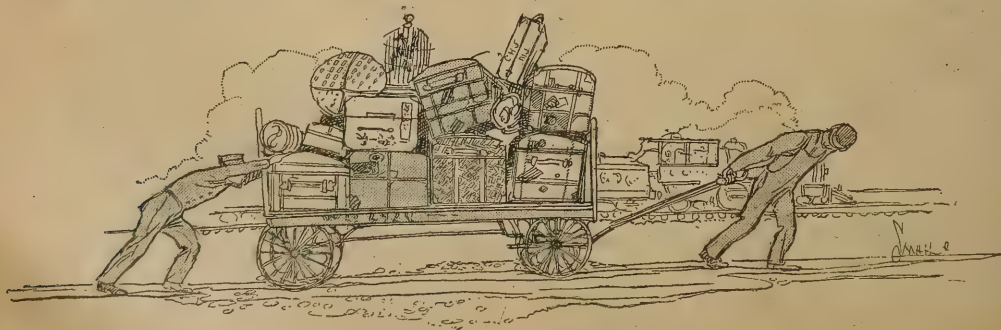
His fireman was pulled out, dismembered,
From under the wreck where he lay
(And he, too, played the part of a hero),
In fragments they bore him away.
They were there, true comrades together,
Their life-tide besprinkled the sod,
And within a few hours of each other,
Both spirits ascended to God.

Hurry Fame, with your brightest of laurels,
To deck poor McCarthy's last bed;
He has gone beyond earthly assistance,
And lies with the heroic dead.
He is one of the army of victims
Whom duty requires each year,
To be foremost where danger is thickest,
And die like a brave engineer.

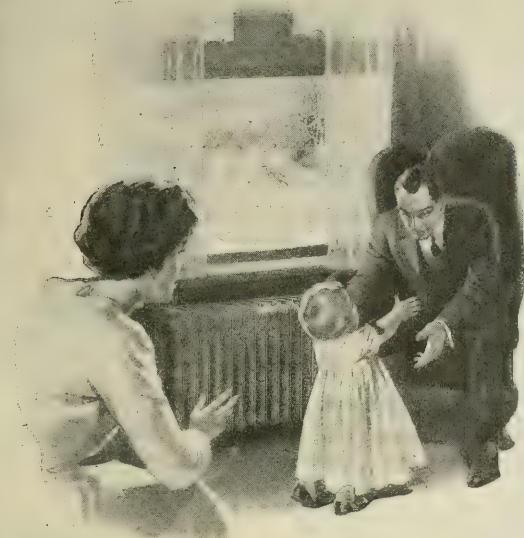
Hear the multitude wail as we bear him,
All covered with flowers to the grave;
Note the grief of his kinsmen who'd tear him
Away from the ranks of the brave;
See his five little fatherless children,
Who huddle up close to the bier;
Hear the sobs of his heart-broken widow,
As she weeps for the dead engineer.

He is now laid to rest, and forever
He sleeps his last sleep 'neath the sod,
All the wails of the loved ones shall never
Recall his free spirit from God.
When on duty he never did falter—
Although he loved children and wife—
But laid down his all on its altar,
And, mind you, that all was his life.

Oh! I know glorious deeds are recorded
Above with a merciful pen;
And I know that all those are rewarded
Who act as the saviors of men.
When Gabriel's trumpet gives warning
To call up the heroic dead,
For review on eternity's morning,
Brave "Jimmie" will march at the head.



First Steps in Heating Values



It has taken many, many careful steps in planning, manufacturing and testing to develop the marvelous heat-producing IDEAL Boilers and AMERICAN Radiators. They are the final steps in heating economy. They save heavily in fuel—save in care-taking, save furniture and decorations from ash-dust, save in doctor bills, save fire risk to building, save half the daily house-cleaning, save in time and temper.

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Do not wait to build a new home, but enjoy comfort and content in the present one. No tearing up partitions or floors, nor disturbing old heating equipment until ready to put fire in the new. Sizes for all classes of buildings—smallest to largest—in town or country. Our free book, "Ideal Heating Investments" tells much that it will pay you well to know. Take the first step today and tell us kind and size of building you wish to heat. Prices are now most favorable.



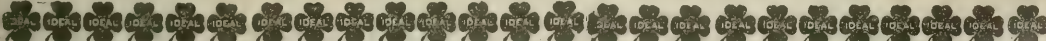
A No. 2-22-S IDEAL Boiler and 330 ft. of 38-in. AMERICAN Radiators, costing the owner \$180, were used to Steam heat this cottage.

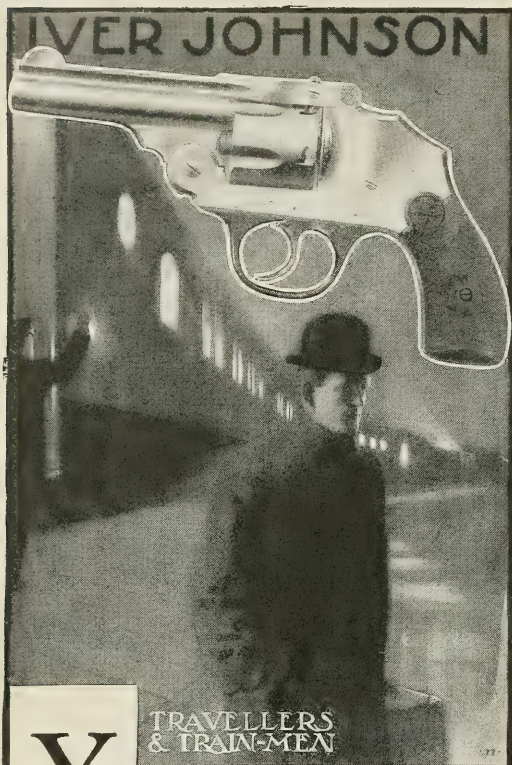
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IVER JOHNSON Safety Automatic REVOLVER

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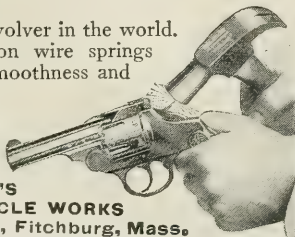
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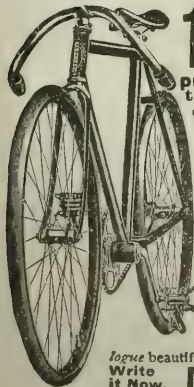
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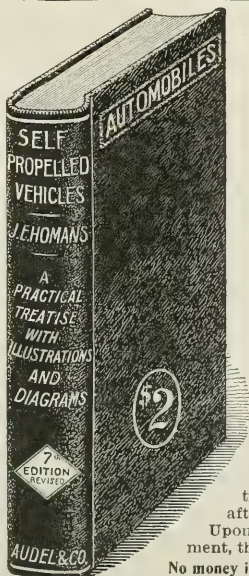
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OCCUPATION.....

ADDRESS.....

Ang. R.R. Man's



IGNORANCE of the laws of self and sex will not excuse infraction of Nature's decree. The knowledge vital to

A Happy Marriage

has been collected from the experience of the ages, in

Sexology

(Illustrated)

By William H. Walling, A. M., M. D.

It contains in one volume:

- Knowledge a Young Man Should Have.
- Knowledge a Young Husband Should Have.
- Knowledge a Father Should Have.
- Knowledge a Father Should Impart to His Son.
- Medical Knowledge a Husband Should Have.

Knowledge a Young Woman Should Have.

Knowledge a Young Wife Should Have.

Knowledge a Mother Should Have.

Knowledge a Mother Should Impart to Her Daughter.

Medical Knowledge a Wife Should Have.

"Sexology" is endorsed and is in the libraries of the heads of our government and the most eminent physicians, preachers, professors and lawyers throughout the country.

All in one volume, illustrated, \$2, postpaid.

Write for "Other People's Opinions" and Table of Contents.

Puritan Pub. Co., 739 Perry Bldg., Phila., Pa.



Salesmen Wanted

Traveling Salesmen earn from \$1,000 to \$10,000 a year and expenses. Over 600,000 employed in the United States and Canada. The demand for good Salesmen always exceeds the supply. We will teach you to become by mail and assist you to get a good position. We maintain the largest **FREE EMPLOYMENT BUREAU** in the world and receive calls for thousands of Salesmen. We have assisted thousands of other men to secure good positions and better salaries and we can help you. Hundreds of our graduates who formerly earned \$25 to \$75 a month have since earned from \$100 to as high as \$1,000 a month and expenses. Thousands of positions now open. If you want to secure one of them and increase your earnings, our free book "A Knight of the Grip" will show you how. Write (or call) for it today. Address nearest office

Dept. 403 National Salesmen's Training Association
Chicago, New York, Kansas City, Minneapolis
San Francisco, Atlanta.

TAKE CARE WHEN IRONING WRINKLES OUT OF THE CLOTHES NOT TO IRON WRINKLES INTO THE FACE!

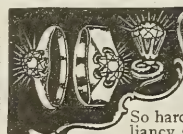
THE IMPERIAL SELF-HEATING FLATIRON is always ready for an easy day's ironing, or for a few minutes' pressing. **NO HEATED ROOM—NO STOVE, GAS, or ELECTRICITY** needed. No tubes or wires to get in the way. Just a simple iron that heats itself with a small amount of alcohol or gasoline.

25,000 now in use—that tells the story.

Write for free booklet—it gives all details about the iron, and the address of your nearest agency.

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NOTE: Agents wanted everywhere. Easy sales—for women want the iron. 3,000 sold by one agent. Satisfaction guaranteed.



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SEE THEM BEFORE PAYING!

These Gems are chemical white sapphires. Can't be told from diamonds except by an expert. Stand acid and fire diamond tests.

So hard they can't be filed and will cut glass. Brilliance guaranteed 25 years. All mounted in 14K solid gold diamond mountings. Will send you any style ring, pin or stud on approval—all charges prepaid—**no money in advance.**

Write for Free illustrated booklet, special prices and ring measure.
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The Story of an Extraordinary Advertising Service

is the name of an interesting booklet we would like to send to every manufacturer and every business man who is not now taking advantage of the best selling force in the advertising field to-day.

We can suggest a solution of the problem of national distribution, with the jobber, the retailer, or the consumer; we can help the manufacturer to develop his business along entirely new lines.

A postal brings full details of this service. Write to-day, and tell us what we can do for you.

THE FRANK A. MUNSEY COMPANY

175 Fifth Avenue, New York

**Taking
His
Orders**



Are You Boss of Your Own Job?

In other words is someone else paid for assuming the responsibility for your work?

The **trained** man is the responsible man. The responsible man is the well-paid man, while the **untrained** man, the chap who does only the **detail** part of the work at another's bidding, is paid just so much for his labor, and no more.

If **you** are only a **detail** man, the International Correspondence Schools can fit you for positions higher up. If you are earning only a small wage the I. C. S. can **raise your salary**. Whether you live near or far away the I. C. S. will **go to you**—in your spare time—and train you for your **chosen occupation** without encroaching on your working time.

Mark the attached coupon and learn how you can secure an I. C. S. training that will **make you boss of your own job**. Marking the coupon costs you nothing and entails no obligation. Mark it to-day. It means

SUCCESS

The I. C. S. can help you just as it has helped thousands of other ambitious men who at the rate of 300 every month are **VOLUNTARILY** reporting salaries raised and positions bettered as the direct result of I. C. S. help. During May the number heard from was 301.

Mark the coupon to-day. Mark it NOW.

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Box 1003, SCRANTON, PA.

Please explain, without further obligation on my part, how I can qualify for the position, trade or profession before which I have marked X.

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R. R. Traveling Eng.
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Locomotive Engineer
Air-Brake Instructor
Air-Brake Inspector
Air-Brake Repairman
Mechanical Engineer
Mechanical Draftsman
R. R. Construction Eng.
Surveyor
Civil Engineer
Banking

Electrical Engineer
Machine Designer
Electrician
Mining Engineer
Mine Foreman
Foreman Machinist
Chemist
Assayer
Architect
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Stenographer
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Employed by _____ R. R. _____
Employed as _____
Street and No. _____
City _____ State _____

There
is
Beauty

in
every
Jar



MILKWEED CREAM

Keeps the skin soft, smooth and velvety, so that healthy Summer tan only adds to the natural attractiveness of a Milkweed Cream Complexion. The peculiar properties of Milkweed Cream keep freckles away, relieve soreness and smarting due to sunburn.

The first requisite for beauty is a healthy skin. Spots and blemishes, no matter how small, disfigure and mar the complexion. Loose skin, crow's feet and wrinkles (due to unnecessary rubbing) are also serious complexion faults. A sallow or colorless skin, as well as undue redness, are Nature's danger signals.

MILKWEED CREAM

gives relief from these and all other complexion ills. For a decade it has been recognized as the best face cream and skin tonic that skill and science can produce.

Milkweed Cream is a smooth emollient, possessing decided and distinct therapeutic properties. Therefore, excessive rubbing and kneading are unnecessary. Just apply a little, night and morning, with the finger tips, rubbing it gently until it is absorbed by the skin. In a short time blemishes yield to such treatment and the skin becomes clear and healthy; the result—a fresh and brilliant complexion.

To prove to you the advisability of always having Milkweed Cream on your dressing-table, we shall be glad to send a sample free, if you write us.

F. F. INGRAM CO., 82 Tenth St., Detroit, Mich., and Windsor, Can.

IMPROVES BAD COMPLEXIONS — PRESERVES GOOD COMPLEXIONS



The Little Fairy Girl

is simply a symbol of the purity of FAIRY SOAP. FAIRY SOAP is made from edible products; it contains no filler, coloring matter or adulterant of any kind.

Pay 25c or 50c for soap if you will, but you will get no more soap merit and purity than are found in FAIRY SOAP at 5c a cake—and, in nine cases out of ten, not so much.

FAIRY SOAP—the pure, white, floating, oval cake—is sold at all good grocery and drug stores.

THE N. K. FAIRBANK COMPANY, CHICAGO

Fairy Soap was granted highest possible awards at both St. Louis and Portland Expositions.

“Have You a Little ‘Fairy’ in Your Home?”

Waterman's Ideal Fountain Pen

for convenience in your summer writing



The More You Write

while you are away on your vacation, the more you will know the convenience of owning a Waterman's Ideal. The successful combination of pen and ink into this one device, annually shows that the care and thought given to the manufacture of Waterman's Ideals are of increasing service to everyone who has writing to do.

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8 School St., Boston.
189 Clark St., Chicago.
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The More You Appreciate

efficiency, the more valuable will Waterman's Ideals become. You will have at least one with you all the time. There is even a Safety type that you can carry filled in your waist-blouse and it cannot spill. A minute to fill it and you are prepared to write at least 20,000 words without a stop—or any inefficiency which would cause you to question the supremacy of Waterman's Ideals.

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173 Broadway, N. Y.

734 Market St., San Francisco.
123 St. Francois Xavier St., Montreal.
6 Rue de Hanovre, Paris.

PRICE 10 CENTS

BY THE YEAR \$10.00



THE RAILROAD MAN'S MAGAZINE

"Nerve in the
Towers"



Startling
Stories
that are True

SEPTEMBER

THE FRANK A. MUNSEY COMPANY NEW YORK AND LONDON

Old
Times



and
New

In old times, a soft skin and a fine complexion were accounted among the leading essentials of beauty; and so they are today. They knew in old times that the kind of beauty that is natural is a thousand times more admired than beauty that is artificial; and they know it today also.

The great difference between old times and now in this matter of beauty is this: in old times—that is, before 1789—they had no

Pears' Soap

to afford natural aid to natural beauty, whereas today PEARS is here, making the preservation and improvement of complexion, and of skin health and skin beauty generally, an easy daily habit—just the habit of the daily use of PEARS, that is all. This is one great reason why there are so many more beautiful women to be seen today than ever there were.

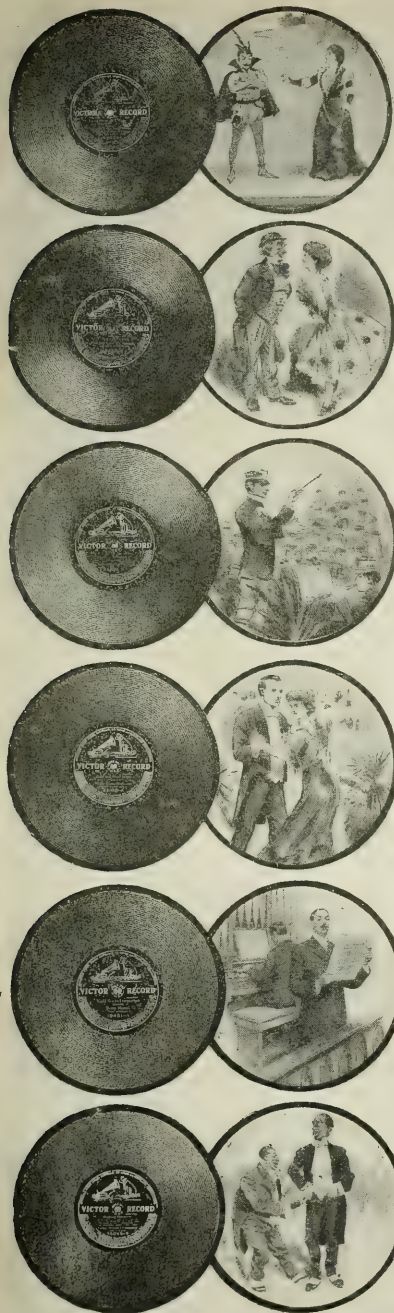
The best beautifying forces of both old times and new are united in Pears



bringing out the natural loveliness of complexion which is woman's chief charm.

OF ALL SCENTED SOAPS PEARS' OTTO OF ROSE IS THE BEST.

"All rights secured."



From the greatest stars of grand opera clear through to "Bones" and "Tambo" of the minstrel show—on the Victor.

In between there's charming vaudeville sketches, band and orchestra music, symphonies, special dance music, comic songs, ballads, sacred selections—everything that the heart may desire.

And all played and sung in the world's best way, as the Victor alone can play them.

The proof is in the hearing. Any Victor dealer will gladly play any Victor music you want to hear.

And there's a Victor as low as \$10. Others up to \$250. Victor Records, 60 cents to \$7. Easy terms can be arranged with your dealer, if desired.

The Victor Record catalog lists more than 3000 selections—both single- and double-faced records. Same high quality—only difference is in price. Buy double-faced if the combination suits you.

**And be sure to hear
the Victor-Victrola**

Victor Talking Machine Co., Camden, N. J., U. S. A.

Berliner Gramophone Co., Montreal, Canadian Distributors.

To get best results, use only Victor Needles on Victor Records.

Victor



New Victor Records are on sale at all dealers on the 28th of each month

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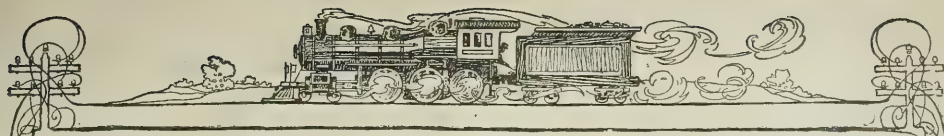
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 FLOUR MEDAL FLOUR GOOD FLOUR FLOUR
 FOR GOLD FOR
 GOOD BREAD MEDAL FLOUR GOOD BUNS
 FRUIT GOLD FOR BREAD
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 FLOUR MEDAL FLOUR GOOD FLOUR FLOUR
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 GOOD BREAD GOOD BUNS GOOD CAKE
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THE FOUNDATION OF SUCCESSFUL BAKING

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THE RAILROAD MAN'S MAGAZINE

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ISSUED MONTHLY BY THE FRANK A. MUNSEY COMPANY.
175 Fifth Avenue, New York, and Temple House, Temple Avenue, E. C., London

FRANK A. MUNSEY, President.

RICHARD H. TITHERINGTON, Secretary.

CHRISTOPHER H. POPE, Treasurer.

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Classified Advertising

In the Munsey Magazines

	Line Rate	
Munsey's Magazine	\$2.50	
The Scrap Book		
The Argosy	\$1.50	
The All-Story Magazine	1.00	
The Railroad Man's Magazine	.75	
The Cavalier	.50	
October Railroad Man's	\$6.25	
Mag. Forms Close August 20th.		
		Special Combination Rate \$5.50

A DEPARTMENT maintained for the small advertiser and for the convenience of the reader in quickly locating a wide variety of necessities for the home, the office, the farm, and for the man or woman who seeks business opportunities. There is virtually no want that may arise which cannot be supplied in these classified advertising pages.

Send for interesting booklet on Classified Advertising.

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LIVE AGENTS WANTED—Hustlers to handle our attractive combination package of soap and toilet articles—\$1.25 premium with every 50c sale. Our Texas agent sold 100 boxes in one and a half days—profit \$35.00. Write today for illustrated catalogue and profit-sharing plan. DAVIS SOAP COMPANY, 46 Union Park Ct., Chicago.

AGENTS—You can have *Free* our illustrated Fall catalogue, containing everything you want to handle, also dress goods samples *Free*. Write today. JOSEPH T. SIMON & Co., 636 Broadway, New York.

AUTOMATIC POTATO PEELER. Peels 24 potatoes perfectly in one minute. Milwaukee Fruit Jar Holder and Cover Wrench. The great fruit canning tools. 500 other red hot sellers. Beautiful sample case with 40 samples of best sellers sent free. Big profits. Geo. C. Edgren Co., Milwaukee, Wis.

AGENTS earn big money weekly selling our new styles embroidered waist patterns, princess dresses, petticoats, art linens, drawn work, silk shawls and scarfs, etc. Catalogue free. J. GLUCK, 621 B'way, New York.

AGENTS—NOTICE! \$30.00 weekly; 90 Big Money-Makers. Easy selling plans. Everybody buys. Anybody can sell. Biggest profits. Samples free to our agents. Send for catalogue. R. C. MILLER Co., Box 155, Muskegon, Mich.

\$25 WEEKLY AND EXPENSES TO MEN AND WOMEN to collect names, distribute samples and advertise. Steady work. C. H. EMERY, MB 32, Chicago, Ill.

AGENTS—Most attractive proposition. Our incandescent kerosene mantle burners fit all lamps, 100 candle power light, 10 times brighter than gas. Prices defy competition. Samples free. Simplex Gaslight Co., Dept. M, 23 Park Row, N. Y.

TAILORING SALESMEN WANTED to take orders for our Guaranteed Made-To-Order Clothes. Suits—\$10 up. No capital required. Write today for territory and complete equipment. Address WARRINGTON W. & W. MILLS, 173 Adams St., Department 359, Chicago, Ill.

AGENTS make big money selling our new gold letters for office windows, store fronts, and glass signs. Any one can put them on. Write today for free sample and full particulars. METALLIC SIGN LETTER CO., 413 N. Clark St., Chicago.

AGENTS CAN MAKE 500% PROFIT handling our Gold Window Letters, Novelty Signs, and Changeable Signs. 800 varieties. Unlimited demand. Catalogue free. SULLIVAN CO., 1232 Van Buren St., Chicago, Ill.

WANTED—Live Men. Postmasters, Mayors, Conductors, Foremen, etc., for highly paying agencies. BRITISH COLUMBIA LAND & TRADING CO., 1184 Ellis St., San Francisco, California.

\$160 MONTHLY AND EXPENSES TO TRUSTWORTHY men and women to travel and distribute samples; big manufacturer. Steady work. S. SCHEFFER, Treas., MG 132, Chicago.

HELP WANTED

REPRESENTATIVES wanted in every locality to sell, on commission, stock of an exceptional money-making enterprise, about to pay heavy dividends. Liberal inducements to right men. Standard Securities Co., 225 Fifth Ave., N. Y.

WANTED—Local representatives to sell men's clothing on credit by largest credit clothing house in the world; no capital required; write for plan. MENTER & ROSENBLUM Co., 603 Cox Bldg., Rochester, N. Y.

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WANTED—Railway Mail Clerks, Clerks at Washington, D. C., City Carriers and Post-office Clerks. Fall Examinations everywhere. Preparation free. Write immediately for schedule. Franklin Institute, Dept. W2, Rochester, N. Y.

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LEARN the truth about Mail Order Business before investing in "outfits." Important information and particulars, showing how to start M. O. business sent *free*. MAIL ORDER LIBRARY, Publicity Dept. M., 509 5th Ave., N. Y.

POPULAR SHEET MUSIC

SONG POEMS WANTED TO SET TO MUSIC.—Splendid contract guaranteed. Greatest offer ever made. Have written many hits. Honest and successful. R. A. BROWNE, 729 Sixth Ave., New York City.

SAVE ONE-HALF ON ALL YOUR POPULAR MUSIC. A postal will bring you our long list of all the popular and latest hits. SEMPLE MUSIC Co., 74 West Ave., Norwalk, Connecticut.

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BROWNIE FILMS DEVELOPED 5c ROLL. All other sizes, 6 exposures 10c; 12 exposures 15c. Expert developing and printing. Send for sample print and price list "R." NASSAU PHOTO CO., 53 Nassau St., N. Y.

"Pollard" finishing develops wonderfully clear, sharp detail in your negatives. First film, 6 exposures, developed free to new customers with individual advice. Sample print, prices, booklet "Film Faults" free for 2c. C. R. Pollard, Lynn, Mass.

Photographic—Finishing and Enlarging for the amateur photographer a specialty—Satisfactory results guaranteed. New list on request. American agts. for the celebrated Ross Lens. George Murphy, Inc., 57 East 9th St., New York.

MISCELLANEOUS

TOBACCO HABIT CURED OR NO COST. Harmless home treatment of roots and herbs. Sure, pleasant, permanent. Send your name quick. KING NI-KO 10, Wichita, Kansas.

TELEGRAPHY

TRAINING SCHOOL established 1907 by S. P. Railroad Co. Train Dispatchers in active service instruct students. Practical Shorthand Course by Mail—\$20. S. P. Telegraph & Shorthand School, 543 Central Ave., Los Angeles, Calif.

TELEGRAPHY, both Morse and Wireless, taught quickly. R. R. train wire and complete wireless station in school. Big demand for operators. Living expenses earned. Correspondence courses if desired. Catalogs *free*. DODGE'S INSTITUTE, 9th St., Valparaiso, Ind. Established 1874.

In answering any advertisement on this page it is desirable that you mention THE RAILROAD MAN'S MAGAZINE.

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PATENTS THAT PROTECT AND PAY. Advice and books free. Rates reasonable. Highest references. Best results. **WATSON E. COLEMAN**, Patent Lawyer, 612 F St. N. W., Washington, D. C.

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STAMPS AND RARE COINS

WE BUY COINS AND STAMPS AND PAY PREMIUMS on many dates and varieties. Send for Free Booklet **A. ROYAL MONEY & STAMP Co.**, 150 Nassau St., New York.

\$7.75 Paid For Rare Date 1853 Quarters; \$20 for a \$½. Keep all money dated before 1880, and send 10c at once for New Illustrated Coin Value Book, 4x7. It may mean your fortune. **CLARKE & Co.**, Coin Dealers, Le Roy, N. Y.

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GENUINE TYPEWRITER BARGAINS. No matter what make, will quote you lower prices and easiest terms. Write for big bargain list and illustrated catalogue. **L. J. PEABODY**, 63 Minot Bldg., Boston, Mass.

BARODA DIAMONDS. Flash Like Genuine ANY CUT STYLE at 1/40 the cost—IN SOLID GOLD RINGS. Stand acid test and expert examination. We guarantee them. See them first—then pay. Special Offer—14k Tiffany ring 1 ct. \$5.98. Gents ring 1 ct. \$6.98. 14k Stud 1 ct. \$4.35. Sent C.O.D. for inspection. Catalog FREE, shows full line. Patent ring gauge included, 10c. The Baroda Co., Dept. A12 838 N. State St., Chicago

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PAY
SHORT
HOURS**

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EARN
\$25.00 to \$50.00 Weekly
IN AUTOMOBILE BUSINESS

Chauffeurs, Automobile Salesmen and Repairmen get big pay for pleasant work because the demand for trained men exceeds supply. We have taught hundreds (without mechanical ability) and we can teach you in ten weeks if you study a few hours a week. It is interesting. Our simple mail course guarantees thorough efficiency because it's personal. Ask our graduates who are earning \$25.00 weekly or more in positions we obtained for them.

Send to-day for first lesson—It's free.

Chauffeurs and competent men supplied owners and garages.

Empire Auto. Institute, 104, Dake Bldg.
Rochester, N. Y.
The Original Automobile School.

"HELP WANTED"

-Uncle Sam.

14,000 POSITIONS
As Railway Mail Clerks, Postoffice Clerks, City Mail Carriers, Clerks at Washington, D.C., and Internal Revenue Employees will be open this year to city and country residents alike. No political influence necessary. Common sense education sufficient and salaries range from

\$800.00 to \$1800.00 a Year
for LIFE

No "layoffs" without pay, because of strikes, financial flurries or the whims of some petty boss. Excellent opportunities for quick advancement to Higher Government Positions. If you want immediate appointment, send TODAY for our schedule of dates and locations of Fall examinations near your home. Any delay means the loss of just so much time in preparing yourself for examination.

We Prepare Candidates Free.

This coupon, filled out as directed, entitles the sender to a free copy of our book, "Government Positions and How to Obtain Them," and to consideration for Free Coaching for the examination here checked.

Franklin Institute
Dept. W 120, Rochester, N. Y.

SEND THIS COUPON

... Railway Mail Clerk (\$800 to \$1400)	... Customs Positions (\$600 to \$1500)
... Postoffice Clerk (\$600 to \$1200)	... Internal Revenue (\$700 to \$1800)
... Postoffice Carrier (\$900 to \$1200)	... Stenographer (\$600 to \$1500)
... Rural Mail Carrier (\$500 to \$900)	... Clerk in the Departments at Washington (\$500 to \$1500)
... Bookkeeper (\$900 to \$1300)	

Name.....

Address.....

Write Plainly



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No matter where you live or what your occupation or income may be, I can make you prosperous. If you want to earn more money—if you want to establish yourself in an independent business requiring no capital—send me your name and address on coupon below. (or a postal will do) and I will mail you, free, our **Big 62-Page Book**, fully explaining just how you can fit yourself to earn big money in the

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We have perfected a thoroughly practical, scientific method of teaching these big money making branches by mail. Our system is a positive success. It not only equips you fully on every point of Real Estate, Brokerage and Insurance, but also give you, free, a valuable course in Commercial Law. Our Free Book is of great interest to anyone, but is of vital importance to Clerks, Book Keepers, Salesmen, Agents, Solicitors and others who are ambitious to be in a good paying business of their own. Send no money, but merely your name and address on a postal or on the coupon below.

The International Realty Corporation
Successors to THE CROSS CO. and H. AV. CROSS CO.
4237 Manhattan Bldg., Chicago, Ill.

NAME

ADDRESS

OCCUPATION

IT WOULD COST more than \$17,000 to send a post-card to the 1,700,000 and more homes that read "The Munsey Magazines" every month.

Advertisers who *know* are using this short-cut

Classified Advertising

	Rate per Line	
Munsey's Magazine	\$2.50	
The Scrap Book	Free	
The Argosy	\$1.50	
The All-Story Magazine	1.00	
The Railroad Man's Magazine	.75	
The Cavalier	.50	
	\$6.25	
		Special Combination Rate
		\$5.50

Minimum 4 lines; Maximum 12 lines. Ten per cent discount for six consecutive insertions.

The Frank A. Munsey Company
175 Fifth Avenue, New York

The Munsey

For September

FROM OVER-SEAS:

"Munsey's Magazine" is one of the leading publications in America and Great Britain, though, naturally, its circulation in the Old Country is not equal to that in the New Land on the other side of the Atlantic. "The Munsey" is one of the biggest magazines published. It is a masterpiece of typographical and artistic work, and it is a pleasure to handle it. Its contents are of a most interesting character, the writers are in the front rank of their profession, and many of the best artists contribute matter to its pages.

—The Ayrshire Post.

A TRIBUNAL FOR ALL THE PEOPLE

By Isaac F. Marcossou

How the Public Service Commissions of New York have curbed corporate abuses and opened a forum for a discussion of the wrongs of the citizens.

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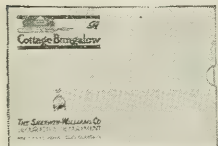
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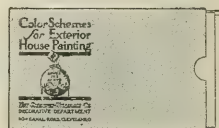
It has pictures in color of each separate room similar to that shown on this page and several exteriors. Each one is accompanied by specifications for painting or otherwise treating the walls, floors, ceilings and woodwork, and definite suggestions for curtains, hangings, rugs and furniture. The outside suggestions include color schemes for the house to harmonize with any given background or setting, also definite suggestions for beautifying the grounds.

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THE RAILROAD MAN'S MAGAZINE

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No. 4.

Joys of the Railroad Joker.

BY RICHARD MAXWELL WINANS.

PRACTICAL joking, in order to get even with somebody, is often fast and furious among railroad men. Sometimes, however, the patience of him on whom the joke is played may be tried a little too far, and, in such a case, monkeying with a buzz-saw is apt to prove a safe occupation compared with getting into the bad graces of a train-crew. You generally have to go some to get a railroad man thoroughly aroused, but when he is sore, look out! He can furnish more unexpected varieties of shocks and thrills and unpleasant brands of hair-raising excitement than any other thwarted individual.

Some Unexpected Shower-Baths That Were Hardly Appreciated by the Bathers, and Other Less Gentle Disciplinary Measures That Worked Rapidly Toward a Result.



HANK sure could snore some promisc'us, an' he was pullin' a extra heavy string of it that afternoon. It was a reg'lar double-header on the up-grade, drawin' hard.

"He just lay there with his mouth gapped like an open furnace, and the intake showed he had something of a forced draft. He was givin' a mighty good imitation of the deep bass whistle on one of the big hog-backs, pullin' in through Bent Knee cut and callin' for the switch at the end of the turn-out—only Hank had the tremolo stop pulled out complete and his tremoloing was of the hair-raisin' brand.

"Finally it got on our nerves plumb scan'alous.

"We'd come in off'n our runs that after-

noon pretty well fagged out with the uncommon heat, and we'd pulled our freight for that dinky old bunk-house for a wink er two, an' some rest—not to have our nervous system side-swiped and ditch-wrecked by a bloomin' galoot that snored so infernally that it made the goose-flesh decorate our spinal column.

"All the boys had made a try at it in good faith, but there weren't any of us none too pleased with the outlook for a snooze; leastwise not in that bunk-house while Hank was under steam—and outside the flies was thick enough to pick the meat off'n your bones and the sun hot enough to cook it for 'em aforehand.

"After we'd passed all the loose furniture and movable things over his way careless-like through the air and got no more'n a

short cussin' for our trouble—for Hank 'd wake up jest long enough to bat an eye and then turn to a snorin' ag'in—why Steve he intimates he has an idea—which was runnin' some for Steve.

"He pulls on his trousers and hikes for the tool-shed, and when he comes back he was a totin' a gate-valve nozzle in one hand and a luggin' in a line of hose with the other. Screwin' on the nozzle, he says, 'Now, if one o' you kickers 'll go out to the hydrant and turn on the water, why I'll wet down that hot box over there so it won't squawk so much, even if I have to drown it an' swim out myself.'

Administering the Water Cure.

"But nobody wanted to miss the show, so he closes the nozzle-valve and turns on the hydrant himself. Then he gits back of the locker in the clear of anything movin' his way suddenlike, while we all pretends to be asleep, but with eyes a blinkin' an' facin' Hank's bunk, an' Steve he cuts loose with a full head o' pressure, hittin' Hank in the open stoke-door first squirt out, which made him close his trap immediate. Then he opens his eyes and shut 'em ag'in sudden.

"Well, you should see him a coughin' and a spittin' and a sputterin' an' a throwin' out his arms and gyratin' like a man tryin' to swim a whirlpool, and all the time layin' on his back while Steve was a floodin' his steam dome and chest. He'd been dreamin' right through all the noise he'd been makin', for when he finally turns over and tries to swim out o' bed, he says:

"Durn that draw! I knowed we'd run into it open some night and go down. Swim for your lives, fellers! I can't help you!'

"Then he comes out of it entire and connects with the floor all telescoped into a heap. By that time, Steve turned off the moisture and beat it outside. The noise woke the rest of us, and we poked our heads out to ask what the fit was all about—and then we pulled 'em in ag'in, quick.

"Hank spied us a laughin', and we hadn't any more 'n backed into the clear when Hank begun to heave everything from shoes to chairs our way, and he wasn't playin' any favorites, either.

A Cessation of Hostilities.

"He was jest strikin' a average, on the chance of gittin' the right man; and poor old Dave, that hadn't set in the game at all,

got a wallop in the wind with a number ten that started a smash-up that mighty near called for the services of the wreckin' crew.

"After we'd got 'em pried apart and pulled their fires to prevent another explosion, Steve drifts in, unconcerned like, and wants to know what's wrecked the shack.

"Seein' he needed informin', we told him, near 's we knew, some sticklers for peace and quiet over at the roundhouse had sneaked in an' soused a few buckets of water over Hank to drown the night haws that was right fast gettin' the better of him—the which I'm not for sure certain that Hank ever believed, but he had to let it go at that, not bein' able to hang it on any one of the bunch particular.

"Well,' says Steve, unhookin' a chair from the hat-rack where Hank 'd hung it durin' the fusillade of bricky-brac, 'this is sure shower-bath weather, all right. Makes a feller feel comfortable cool for a spell, till he gits het up ag'in.

"Anyhow,' he continues, leanin' the back of his chair ag'inst the card-table, 'Hank come off easier 'n a bunch of guys did on a run up to the Soo Line I happened to be on once.'

"Sleep was shunted onto the sidin' for all of us by that time, so we lit our pipes and bunched up to hear Steve's experience. He says:

The Con Butts In.

"I was firin' for Dan Purcell, the year before we both come East. I was still a right smart kid. We was pullin' one of them harvest-home, or some such excursions, from Chamberlain down to Sioux Falls; though why any one wanted to go to Sioux Falls in them days, I dunno, unless it was some Easterner as had rough-house at home an' wanted to jump a claim there long enough to git a divorce.

"We had ten coaches out, an' they was pretty well filled with a mixture of everything from professors from the Government Indian School to Indians and cowboys, some of 'em ridin' in from as far out as Crow Creek and Zickrick!

"Them cow punchers had a lot of deviltry corked up in their systems, besides what they had corked up in other things; and once in so often they'd pull th' cork out o' both!

"They all bunched up in the three rear coaches, which they comfortably filled, and they were peaceable enough at the start. There wasn't any kick comin' till we got to



"HE FINALLY TURNS OVER AND TRIES TO SWIM OUT OF BED."

Pukwana, when durin' the stop to take on the contingent there about twenty or more of 'em climbed on top of the rear coach.

"I spotted 'em as I looked back when we made the bend at the end of the turn-out, an' I tells Dan, an' he tells the conductor when we gits to White Lake.

"The con was a young man, but old enough in that neck of prairie to know something of Mr. Cow Punch's disposition, so he makes his invite to them high-roosters to come down kind of gentle and polite, addin' softlike, that it was strictly ag'inst the rules of the passenger-traffic department to ride either on top of or under the wagon, an' that he'd git fired unceremonious if he allowed them the forbidden privilege.

An Invitation Refused.

"But they wasn't moved to tears none by his heart-to-heart pleadin', and assured him in well-seasoned, if not well-chosen, talk that it was too roarin' hot inside the wagon for them, and that they wouldn't ride there, and that they proposed to stay where they was and enjoy the fresh air and gentle breezes of the prairie.

"Right then the con had some urgent business elsewhere and he gives us the ball to hit the trail ahead. Before we got to Plankinton the con held a confab with some of their friends inside and induced them to make a try at gettin' the fellows up above to come down off their perch. When we stopped, the result was so much powder smoke hangin' around that car it looked like a prairie fire. There wasn't anybody hurt; they wasn't shootin' that way—jest foolin' like, but the bunch on top managed to burn up their last round of ammunition.

"The insiders didn't take the turn-down to their invite none too gracious, and so they framed up a job on the outsiders before they got to Mount Vernon, the last stop west of Mitchell. When we pulled up at the depot there the whole outfit tumbled out and kept the outsiders' attention attracted by tryin' to persuade 'em to come down, which they knew they wouldn't, while a couple of 'em went into the depot and gave the agent a telegram to send ahead to Mitchell.

"It was a request to have the fire department at the station all coupled up an' ready for quick action if they wanted to witness some ripe fun when the special pulled in.

"A Westerner is a sure enough maverick if he isn't always ready to play a hand in a game of amusement, and pay the price, at that.

"When we got to Mitchell there was the fire department in full attendance, with their apparatus equally divided to north and south of the train. The two cowboy leaders in the game was off an' runnin' f'r the chief before the train had stopped, with the other pilin' out ready for the comin' doin's.

Dampening Their Ardor.

"Then things started to happen. The chief gave an order and the engines puffed and chugged an' wetness galore poured out of the half dozen nozzles on both sides of the rear car. Right then the cowboys round-

ed up and took charge of the ceremonies. They proved their aim was as good with a hose-nozzle as with a gun-barrel.

"They didn't give the top perchers nary an invite to come down this time. The play evident was to keep 'em from gittin' down, for if a stream hit a man hard on one side and threatened to knock him off the roof, the punchers on the other side turned a line on him and forced him back to center, and soon they was all layin' hard down on their shirt bosoms, holdin' on to the ventilator coop to keep from bein' washed off.

"A few tried to git down over the ends of the car, but they got the streams fairly under 'em and was naturally squirted back on top ag'in. Them cusses kept a playin' the hose on the bunch a top of the train durin' the whole of the stop for eats at the

lunch-room, the reg'lar firemen meantime enjoyin' th' show, a holdin' their sides with laughin'.

"When it was time to pull out the punchers turned the hose and the price of several wet lunches over to the firemen, and, pullin' a gun or two apiece, ordered the soused rats on top to stay where they was till we got to Soo Falls, or till they felt they jest couldn't any longer resist the natural temptation to come down and buy drinks for the bunch inside.

"But they proved good resisters, both ways from the middle, for they stuck it out clean into Soo Falls, and, being plumb out of ammunition, they stood for the rankest kind of guyin' at every stop we made.

"The play didn't wind up till after they'd been in Soo Falls for about an hour, when they'd got stocked up on prairie licker and took on a fresh supply of gun food, and then it took all the police force and part of the citizens to prevent the town's grave-



"WHEN WE STOPPED,
THE RESULT WAS
SO MUCH POWDER
AND SMOKE."



"HE SEEMED TO ENJOY THE EXERCISE."

yards from bein' filled up complete in one instalment.

"Well," says Hank, who'd been busy bangin' up his extemporany wash and gittin' inside some dry togs, "I ain't got gizzard enough to send any man out on the Long Run ahead of his natural schedule, howsom-ever much I feel I'd like to on this particular occasion, but I will say I'd like to hammer the stuffin' loose in the onregenerate son-of-a-hand-car that spoiled my cozy trip to Sleepy Holler.

Proving His Innocence.

"Now, look here, son," interjects Dave, "you can blame it all on your infernal saw-mill hollerin' on the trip that the run was ditched. But whoever's to blame, it ain't your Uncle Dave. I turned a heap of water on a feller once and give him a duckin' to a finish; but when it come his turn he mighty nigh makes a finish of me, and I haven't indulged in the pastime of gittin' folks wet, leastwise not outside, for a long time.

"It was a good many years ago that I got mine," continues Dave.

"I was firin' one of them little two-by-four pocket editions on the Nickel Plate, with Billy Ryan at the throttle. Well, it may be hot in Arizonny an' Texas, but they ain't got anything on the vineyard-belt along the lakes when it takes a notion to get real hot upon a real hot day and no breeze a blowin'. It was so hot that day you could have fried an egg on the top of a rail anywhere.

"We picked her up at Cleveland. It was one of them Niagara Falls excursions, and the bargain-counter fare had give 'em a pretty jammed-up load. It was hot enough in them coaches to hold a clambake, and it weren't no wonder some of 'em wanted to ride on the platforms, the which, of course, was against the rules.

"But the con, who was a young feller, had sort of a human gizzard on his insides, so he lets 'em out for an airin' between coaches, there bein' no vestibules. All but the front platform next the engine, not carrying any baggage, their luggage bein' mostly lunch-boxes—and he drives 'em all in from there, after havin' a right smart argument with one big feller, that had some of the makin's of his farm on his boots and pants, as material

evidence of his callin', and then he locks the door.

"When we made the stop at East Cleveland this farmer feller piles out and lopes up to the front platform, just as we was a pullin' out. The con gets wise and goes up to present his compliments and extend him a cordial invite to come on inside out of the draft, fearin' he'd ketch cold, or fall off.

Pleasant for Mr. Farmer.

But the big guy jest returns the compliments an' extends his invite to the kid con to come out and git him, with the comfortin' assurance that if he did he'd take him by the nape of the trousers and the seat of his coat-collar and smear him along the passin' scenery. But the con, being jest newly married and havin' a decent regard for his prospective widow, had the good judgment to let him alone for a while.

"However, when we stops at Mentor he hikes up ahead and unbosoms himself of a plan to make it pleasanter for Mr. Farmer to ride some where else, and, being young and foolish, I takes it like a trout goin' up for a fly. I was to see that the gent got a shower-bath along with his airin'. Bill cops the spirit of the thing, and he bawls out of the cab-winder:

"Hey, Dave!" says he, solemn as a owl, "you've got to wet down that coal ag'in. It's too dry. They didn't git enough water on it down at the yards. An' see that you soak her up good! It'll soak up a lot o' water."

Liquid Persuasion.

"All right, Billy," says I. "That coal-bin'll be a swimmin' when I git through with it." And as soon as we pulled out I begins drawing water in three buckets and sloshing it up over the coal. Over is a good word, too, for mighty few drops hit the coal, bein' swept back by the draft and landin' against the end of the front car. I was real careful to hit the center, so she'd slash out both ways and git that chap wherever he was, and I don't believe a bucket fire-brigade could have kept a steadier stream of water runnin' over the back of that tender than I did.

"I expected to see the cuss come up over the end any minute, and if he had I'd a begun a heavin' coal at him instead o' water. But he had some class to his way o' reasonin', knowin' he'd be out of his element on that jigglin', swayin' tender, so he takes his bath like a perfect gentleman.

"I concluded if he didn't vacate soon as we reached the Painsville water-stand I'd git the spout goin' full and then swing it on him, an' jest naturally drown him out—the which I did as soon as I could git it swung round, for he was still there, soaked to the skin, and a cussin' the best he knew how, and his education in that line hadn't been neglected.

"That flood o' wetness was too much for him, and finally he hops off. But I was laughin' so hard I lost track o' him till I heard the coal rattlin', and looks round jest as he grabs me, gives me a jiu-jitsu, lands me face down on the water-table, with one hand pinned across my back and him a straddle of my boiler. Then that cuss yanks the spout inboard, disconnects the canvas apron so it could spread some, and hauls it over me direct.

Tit for Tat.

"I could have stood the water-soakin' all right, but he give me a combination in soak-in's, and the way he let fly at me with them hams hung on the ends of his pile-drivin' arms made my ribs crack and my head roar like goin' through one of them head-on collisions when you git derailed and roll down a hundred-foot embankment.

"But he seemed to enjoy the exercise, and he kept right on, never missin' a lick, and not neglectin' any part of my carcass that he wasn't sittin' on, with the torrent from the stand-pipe buryin' us in a slather of water that washed over and flooded the coal-bin, until my hollerin' brought Billy and the con out of the telegraph-office, together with a crowd of passengers, when he beat it over the side of the tender and up the street, the drippin' water from his clothes a layin' the dust as he went.

"I was so pounded up and sore that, seein' it were the con's funeral, anyway, I made him send one of his brakies up to help me fire her into Erie, where I went into the repair-shop for a week. Since then I've always let the other feller play his hand alone, jest as I did to-day. It's a powerful lot safer."

"Well," says Benny Fletcher, getherin' up some of his stray runnin'-gear that'd got scattered in the openin' mêlée, "when it comes to downright, cussed persistence, that guy didn't have much on a red-headed farmer that we hung a job up on out on the "Monon," back in the early eighties. But the beatin'-up prize was drawn by the farmer in this game.

"He was a husky, gingerbread-headed Hoosier that lived up the line near Connersville. He owned a farm big as all out-doors, and he had a big herd of cows that he made a great mess of butter from. Every week he'd ship it down to Cincinnati market, together with several barrels of dressed chickens, and on a certain day regular he'd have about a

tired of him; so to make a short run of him, we framed up a fake express robbery for his special benefit. The run before the one we was to pull it off on, we spent our off time in the express-car swappin' yarns about all the desperate hold-ups we'd ever heard of, and some we hadn't, the subject bein' introduced by Bob, the messenger, sayin' as how



"THAT DEFY WAS A SIGNAL
FOR ALL THE LADS WITH
LONG GUN-BARRELS."

wagon-load of the stuff goin' down on the midnight express.

Hanging a Job on a Hoosier.

"He was one of them close-fisted, suspicious geezers, and he insisted on ridin' in the express-car—the which he'd somehow got permission to do—for the reason as how he said he once had a pound of butter stole out of one of his packin'-cases by some wicked, thievin' express-messenger, and he wouldn't let his eyes off his stuff no more till he saw it safe in the market-stalls.

"He made himself a regular bloomin' nuisance in the car, and we all got right well

they'd recently been a darin' hold-up on the line that the officials was keepin' quiet about in hopes of catchin' the robbers, and he naturally felt kind of creepy himself.

"The old guy sets in close, with his mouth open, and swallows the whole rope, showin' by his nervous actions that he was goin' to be easy money when the game was called.

The Hold-Up.

"It didn't kill him off, for on his next trip in, he hands us the pleasure of his company, as usual, and so, havin' the cards all stacked, we played the brace-game as per schedule.

"We'd tipped off a bunch of the boys

who'd be layin' over, and who'd rather have a hand in a little rough-house than eat, and they dead-headed to Liberty on the up-train,

"It was sure a fierce-lookin' gang, and we all acted the part of discretion by tryin' to git a strangle hold on the man in the moon without unjointin' our arms—all but the farmer man.

"Seems like he wasn't educated in the social eddicket of hold-ups and gun-play. He sights the masquerade procession, mutters something onreligious—that his kickin' brindle cow was prob'ly familiar with, makes a grab for the ax in the emergency-box, falls back in good order to his pile of stuff, where he stands ready to protect it, makin' a picture that'd pass for Ajax a defyin' the lightnin'.

"That defy was the signal for all the lads with long gun-barrels to uncouple from the main train, sand the track a bit, slack ahead, and git busy switchin' the old geezer round the freight-yard promisc'us and uncere-monious. And they did.

"After 'gittin' the ax away from him they went to it in relays, and in a friendly sort of spirit give him a gentlemanly beatin' up that had Farmer Bricktop yellin' for brakes before half of 'em had a chance to take a wallop at him. Of course they didn't do any permanent

damage to his machinery; that wasn't the play; but they did give him a round-fisted massawge, from his knees to his collar-bone, that made him a durned sight sorer than when he had that pound of butter stole.

"No, children," concludes Benny, after a pause, 'if that's what you wanted to know, that old carrot-top always thereafter rode back in the regular cars like the other white folks, and he never made any complaint about bein' robbed, either; although some of us could bear witness that he made mighty fine butter, and that them there springers of his was right good eatin', broiled or fried.'

"Never knew before, Ben, that you ever run on the "Monon," and we all looks around, surprised to see the division superintendent leanin' against the door-jamb, hat in one hand, nibblin' a real cigar.

"But I've been listenin' to your story, and



"JAKE SANG OUT, 'A YOUNG ROOSTER FOR MINE.'"

and stowed themselves on the front platform, ready for the "attack."

"Bob was just tellin', confidential-like, that his cash-box was plumb full of money, and he was restin' easier because we was nearin' the end of the run, when there comes a loud poundin' rap at the end door up front.

"Give us credit for bein' duly scared and makin' a noise like a man shiverin' in his shoes, when Bob puts on a bold front and opens the door, only to jump back and throw up his hands as a old blunderbuss that might have been handed down by the Puritan fathers was poked in through the door, followed by about a dozen of the boys dressed like regulation train-robbers, carryin' a collection of antique firearms you wouldn't see on exhibition outside a museum, and that couldn't have got a bullet out of its system without a corkscrew.

it proves it,' says he, 'for I knew that same old shag-headed Hoosier, or his twin-brother.

The Super's Story.

"Back in the summer of 1887, I think it was,' he continued, takin' a seat in the circle like he was one of us, 'I was a train-news-boy then, and had a run in with the same, or another, sorrel-topped farmer of that town. He worked a con game on me.

"Being the first train up in the forenoon, there was a good sale for the Cincinnati morning papers. On my first run I hopped off at Connersville, took my stand by the car-steps, and handed out papers as fast as I could pocket the nickels.

"This guy, with corduroys tucked in his boot-tops, stood back of the crowd until the engineer got the high-ball and had 'em on the first turn-over, when he rushes up, wavin' his hands at me and hollerin' for an *Enquirer*, which I handed him, and he pokes it in his pocket. Then he begins to dig in his clothes for the nickel, and he kept diggin' and mutterin' something about never bein' able to find his change when he wanted it, until the front of the last car was up and I was preparin' to grab the last steps, when he flashed a wad of bills as big as a smoke-stack, and sings out to me as I swung aboard:

"Sorry, kid; I ain't got no change now, but I'll pay you when you come back!"

"I was green enough to expect that he would, for my confidence in human nature those days stood about like the mercury outside, around the hundred-degree mark. It's down around the frost-line now.

"I saw him nearly every morning after that, but he bought his papers off the local boy, and when finally I asked him for my nickel he was always "durned sorry, son, but I ain't got no change about me jest now."

"One day I asked a native, and he told me the old skinflint ran a dairy and poultry farm which was just across the tracks from a saw-mill plant up the road a few miles, where there was a loading-switch.

"I had told the crew about the incident, and then forgot it, until one day we backed in on the mill-switch to let a special pass, and I spied a flock of his chickens scratching around on the edge of a sawdust pile.

"Just then Billy, the baggage-man, pokes his head out and yells:

"There's your chance, Butch, to collect your arrears on subscriptions from that old scalawag—and don't forget there's ten of us in the crew, and we all like chickens!"

"Then Jake sang out from the engine-cab, "A young rooster for mine!" and Jack Mills, the front brakeman, let me know that he liked any kind of poultry, just so it was chicken.

"But I didn't need their urging to stir into action the resentful spirit of the kid that was buttoned inside my shirt-bosom, and I was soon maneuvering to get the flock into a corner, where I begun grabbing at yellow-legs with both hands, one leg to a chicken, and in no time I had half a dozen in each hand, and was beating it for the baggage just as the train started out.

"But pretty soon there was two sprinters running for that car, and one of them was the red-headed guy that had beat me out of the price of a morning paper. He yelled:

"Hey! — hey! — hey! Stop! — Them's my chickens! I want my pay for 'em!"

"Durned sorry, old man," I said, as Jack give me a helping hand to get aboard with my load.

"Then I poked my head around the corner of the car as he come puffing along, hopelessly beaten, and shouts at him: "I ain't got no change about me just now," and then I added, "but I'll pay you when I come back!" which I never did, for I asked for a transfer and took a run on another line out of the same depot.

"And,' he concluded, chuckin' a cigar-butt in the big sawdust cuspidor, 'I never felt overburdened with any serious promptings to send that old duffer any conscience-money, either—and, more than that, I don't think that I ever will.'

"Well,' says Benny, 'he sure was the same identical individual, for he told us that same story, plumb like you told it, a goin' down one night—only he omitted to say he stole anything from you—bein', as he told us, a "pillar in the church," and I got to thinkin' that if the institution's props was all of the same worm-eaten, holler material, the whole shebang would have tumbled down a right smart spell ago."

Some people are like turntables; they are always changing their direction, but never getting anywhere.—Observations of the Roundhouse Foreman.

B. B., THE WEATHER WIZARD.

BY EMMET F. HARTE.

"HE'S HAD 'EM
UP LIKE THAT
FOR THIRTY-SIX
HOURS."



Honk and Horace Have an Inning with a Pensive Prognosticator Who Was Anything but a Hail Fellow.

ers in the vicinity could tell when to plow, when to plant, and when to take a day off for a picnic. A worthy project, if it would work, as I heartily agreed.

Honk took it up with Dade, the general immigration agent of our road; Dade squealed to the P. and P. management, and they put the proposition up to Uncle Samuel. The humble movement, growing like a cumulus cloud on a humid day, finally blew us up something definite in the shape of Basil B. Carew, accompanied by two packing-cases of skycological and windographical instruments.

He came, fresh from his civil-service exam, a round-headed, youngish man, but uppish—ouch, mister!

He had an arrogant confidence in himself that was impressive. He opened up on the top floor of our tallest, four-story, heaven-towering building, where he could see any old kind of weather, in any direction, ten or fifteen minutes before the rest of us plodders down nearer the ground had a chance at it.

He strung up his little row of pennants on a pole, stuck up a whirligig or two, set out his barometer, thermometer, and chronometer, unpacked his rubber-stamp printing outfit, and got busy with his prophecies.

Honk is an enthusiast on any subject except matrimony and buying tobacco. I'm not so much so. I'm more conservative. I once worked for a year or so in Missouri. Anyhow, when we got our weather-station Honk was mightily tickled.

"A fine thing for our people, Horace," he said, that first day the bureau started up. He was peeking through the end window of the medicine-house at the fluttering flags while speaking. "Now, the boys can tell when it's going to frost, when it's going to be hot and dry, or when we'll have rain or

BASIL B. CAREW was his name. We called him B. B., which is the next thing to a .22 short. He was the incumbent of Valhalla's new weather-station. A meteorological expert, presumably, but—well, let's not begin in such a hurry.

You know we were having quite an influx of agriculturists around Valhalla—small-fruited, truck-patchers, melon-raisers, and sugar-beeters—all sorts of versatile and diversified farmers.

They bought and put in operation a large number of farm, garden, and orchard ventures of from five to fifty acres; new ones were coming in steadily; prospects were bright; so Honk set up a yelp for a weather-station.

He wanted daily bulletins, flags displayed, wind-testers, hourly prognostications, and everything; so the untutored hoe-push-

hail. See that little strip of rag zipping in the breeze? That represents the supremacy of mind—the triumph of thought.

"While man cannot as yet harness and guide the elements, the vagrant winds, the tumbling clouds, he can feel the pulse of 'em and say to a certainty whence they come, whither they go, and why.

"Science, my boy; science is the key. Take away science, and where would you be to-day? Dressed in the pelt of a goat, delving with a pointed rock in the earth, for beetles or angleworms to stay your hunger, Horace; that's where you'd be."

I cleared my throat for a fitting reply to this sally, but Honk did not wait for it.

"Loan me a small chew, will you?" he requested hungrily. "What do you think of the new weather man, anyhow?"

"He's not impressed with us as much as he is with himself," I said. "When he talks to me, he seems to think I'm just a little fat dub who don't know very much about machinery. I asked him if he looked for warm weather in August, but he never cracked a smile.

"He said: 'In the event of normal pressures throughout this district, and with, as is usual, a low percentage of precipitation, we may reasonably expect maximum temperatures of ninety degrees Fahrenheit, or even higher.' What do you think of that? Why couldn't he have said: 'I should snicker! It'll be hotter'n blazes,' and been done with it? It's all a guess, anyhow. He needn't take himself so seriously."

"I beg leave to differ with you," said Honk. "It's not a guess. For instance: The flags say now 'Rain and colder,' and if you look out you will see that there's not a cloud in the sky. That's where science has the bulge on mere haphazard guessing.

"Your goose-bone prophets look up and see a big, black cloud, and say it's going to rain. When it's clear with no wind, and the thermometer stands at twenty-eight, they guess it's going to frost.

"That's where we've got the edge over 'em. We know before it gets here. It's the difference between the drilled soldier and the rabble; between the repeating-rifle and the pea-shooter; the electric furnace and the 'dobe oven. No guesswork about it, my dear Horace."

On the strength of the prediction of "rain and colder," he phoned over to a sewer-construction gang, telling the foreman to knock off ditching that day and get the cement under shelter. In view of the cloudless sky

and the bright sunshine, the gang probably thought him crazy with the heat; but theirs was not to reason why, so they followed instructions.

About five-thirty a dark-green cloud rolled up from the west, and it rained a regular gully-washer, winding up with hail as big as cantaloupes—that is, small cantaloupes, you understand, not muskmelons. When it quit hailing it was cold enough for ear-muffs.

Honk just about swelled up to the exploding-point with that. He wanted to declare a half holiday, get out the populace, and have a parade in honor of the successful outcome of the prediction.

"Great!" he said. "There you are! *Quod erat demonstrandum*. The vindication of scientific methods. Never let me hear you quibble again. Keep your eye on the signals, and you'll never go astray. If you don't see it on the bulletins, it ain't going to happen, that's all," and other I-told-you-so palaver of the same sort. It was his inning.

I accompanied Honk next day when he went up to gas with the weather man. B. B. didn't seem to feel flippant. He was just taking the pulse of the elements and noting it down on a chart that looked like the rise and fall of the price of wheat since 1894. Zigzag lines, arrows, dots, and circles made with red ink. Honk rubbed his hands and smirked.

"Fine stuff," he said admiringly. "Great doings! What's on the menu for to-day?"

"Cloudy, with variable winds shifting to the east," said B. B., like a poll-parrot.

"That means more rain," said Honk.

"I didn't say so," said B. B. curtly. "I said, cloudy, with variable winds shifting to the east."

"I heard you," said Honk. "How's your chewing? We came up to congratulate you on yesterday's prediction. It was the warm article. Right on the dot."

Friend B. B. refused to beam.

"Our system is very comprehensive and dependable," he said, with a bored air. "The possibility of error is quite remote. The United States Weather Bureau has passed beyond the stage of mere conjecture."

"Just what I told Horace, here," bubbled Honk. "He is something of a Doubting Thomas."

B. B. looked over, by, and through me, as if I was some kind of a worm. He made no comment. Insects and vermin had nothing to do with the weather.

"You'll have to put the professor in an

electric heater," I said to Honk. "It seems chilly up here. *B-r-r-r!*"

"I thank you, I'll have no need of it," said B. B. "I think I'll be able to manage. Besides, if I should require any additional furnishings, the government attends to all detail of that character. Please do not handle the instruments, gentlemen."

Honk and I withdrew. This weather man was an unresponsive kind of a hail-fellow. He struck me as a little bit sleety, with a raw wind accompanying.

"Now, will you stand hitched?" I asked, after we had made our escape. "Never monkey with the band-wagon unless you can play the oom-pah."

"The young man is nervous and excited naturally," said Honk. "He isn't adjusted yet. He is in a new environment, unfamiliar surroundings, and all that, and probably our brusk Western camaraderie shocks him. You can't blame him for that."

I didn't. I forgot all about him for the next two or three days. The crappie were biting too well for me to worry about B. B., until, one noontime, my attention was called to the new weather bureau by Honk, who was comparing the code with certain signals displayed above the observatory. He was muttering to himself:

"A white flag, with a black triangle above it, means fair and warmer. He's had

'em up like 'that for thirty-six hours, and it's spitting snow, with the wind in the northwest. Say, Horace, that weather man has got switched off into a blind siding. Come here and see how you get it."

I cast the horoscope.

"Fair and warmer," I said, shivering. It had commenced to rain,—a cold, driving rain—and the wind was yowling. Honk shook his head.

"I can't see into no such a forecast as that," he said.

"He means to-morrow," I suggested.

"He had the same ones up all day yesterday."

"Then, it's for day after to-morrow," I declared.

B. B. kept his "fair and warmer" signals displayed until it did turn fair and warmer. However, that was a week later. We had all sorts of cold rain, biting winds, sleet and slush, in the meantime.

On the day it moderated and the sun came out again, B. B. yanked down his white flag and black triangle and hoisted his blue with a black-centered white above it. We grabbed our code list and found that we were in for a cold, wet wave. I'll say this, however: It was the warmest and driest cold, wet wave I ever saw. A regular chinook.

Then ensued a carnival of weather. People spoke about it. Gradually, of course.



HONK DID THE PAUL REVERE THAT AFTERNOON UNTIL HE WAS BLACK IN THE FACE.

Thunder and lightning, or rainfall, excessive heat, high winds, and such other manifestations of the fickle atmosphere, are common in their respective seasons.

It takes some time to get the American public stirred up. The people will stand for a lot and pass it off by saying: "Yes, but this ain't a patch on a circus-tent to what we had in the spring of 1872," or "When I was a boy," etc.

Valhalla was so comparatively recent that we hadn't many precedents. Our oldest settler had only been there the number of years he could count on the fingers of one hand, and then have counters to spare; nevertheless, it was a revelation to all of 'em, that festival of weather.

April came in like a lamb, cooed like a dove, warbled, frolicked, raved, snarled, chirruped, roared, and went out like a bull when he sees a dago washing on a right-of-way fence.

B. B. was predicting just as fast as he could, all this time, but he couldn't keep in sight; the weather veered so fast he blistered his hands changing signals. He got the swing of it a little better after a while, and settled down to a routine about two days behind.

We'd have a hot shower, with B. B. maintaining a strictly cold and dry schedule; then when he got his half-blue and half-white flag up we'd have a dust-storm.

May came on apace. May, that had always been a shy, sweet, gentle sprite, with her budding and blooming and her busy bees in the clover. But this time she came, with bristles standing out like the quills of a porcupine, snarling and spitting.

Only once during the month did we have a warm spell, and that was the week Honk's orchard-growers had such a time with their smudge-pots.

It was the second week in May, when our weather-station fired out frost warnings. "Prepare for killing frosts," the bulletins said. "Cover up the bean-vines and blanket the tomato-plants."

Light freezes in the valleys and old hoary Jack, with all his whiskers, on the hills, was the dope.

Honk was all aswirl with it.

"I must get out and carry the news to every fiend of 'em," he said, "or some of the louts are sure to get their fruit prospects nipped in the bud."

"Go ahead," I said. "Take my bicycle and enjoy yourself. The exercise will do you good, besides helping you."

Honk did the Paul Revere that afternoon until he was black in the face.

"Get out your smudges," he told 'em. "Build fires between your trees and in your berry-patches! Frost predicted for to-night! Burn up your old clothes and consign your furniture to the flames if necessary, but save the fruit! Men, save the fruit!"

Well, they got out and worked all night. A nice warm, balmy night it was, too, with the moon ogling them and the soft, summery breezes blowing the smoke from the smudges into their eyes, ears, and throats.

Ardently did they labor, and every man imagined that he was staving off the white blight that would destroy all his neighbors' crops, while his alone would escape. No doubt, they figured on what awesome prices fruit and garden sass would bring when it had all been killed but their own one little patch.

Toward morning it got so warm that we had to open the windows of the medicine-house. The entire heavens were darkened with the smoke from the smudges.

"Say," I said, "these guys are heating up the entire out-of-doors with their frost preventives. It's warm enough to hatch flies outside."

Honk looked out and sniffed at the combination smells.

"Fact," he said. "If this keeps up I'll have to shuck my flannel."

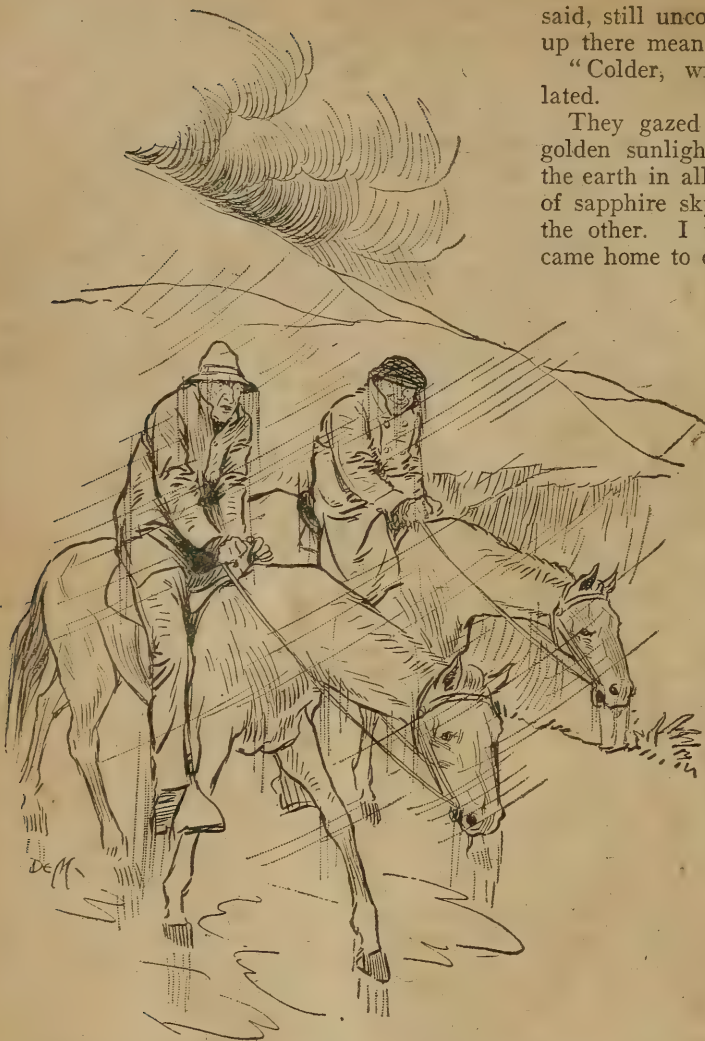
"It's almost warm enough for you to take your annual bath," I remarked.

The heat was no mere figure of speech. I suspected that I might be called upon in after years to stir the fancy of some reminiscent group of weather-sharks with the data of how many degrees persistent smudging could raise the frosty air of night, so I dug out a thermometer and hung it outside. Within fifteen minutes it registered 68, which is what I call smudging some.

B. B. kept his frost warnings uppermost for five days, during which period it got as hot as 104 in the shade in the afternoons. The fruit men got tired of smudging, and dropped out one by one. To keep fires going in the face of summer heat requires more than blind faith; it is too much like work.

We heard mutterings and scoffings round about. A pair of ex-smudgers, who came to the freight-room for some small consignment or other, said to me:

"Where's that long hungry who came out on a bicycle to give us the bum steer about frost?"



HONK'S TEETH CLATTERED TOGETHER LIKE A COMPRESSED-AIR RIVETER.

"He's down in the south end to-day, seeing after some paving," I said truthfully.

"Him, or somebody, needs fixing in the hay-loft," they said. "Why, this weather-bureau business is the worst frost we've had around here. Does anybody pay out money to keep up a joke-works like that weather bureau?"

"They do," I said, decidedly. "It's maintained by the government. And it's very expensive and elaborate. The system has been brought to its present high standard of excellence by the expenditure of immense sums of money for experiments and the employment of the best brains in the country to perfect the work."

"And it don't amount to shucks," they

said, still unconvinced. "What's them flags up there mean now?"

"Colder, with rain or snow," I translated.

They gazed at the flags, at the flood of golden sunlight, at the heat dancing along the earth in all directions, at the blue vault of sapphire sky, and they snickered, one to the other. I told Honk about it when he came home to dinner that night.

"Let them have their fun," he said. "Science has been jeered at all down through the pig-headed ages. Mankind is the most ungrateful animal that runs at large, anyhow. He gives no credit for the hits, but he's always ready to ki-yi at the misses."

Honk had been planning a jaunt into the hills for the purpose of locating a dam site—no profanity intended.

He had in mind another big reservoir and reclamation project. At the last moment, I took a notion to accompany him, seeing it was Saturday afternoon, and Sunday wasn't a very busy day.

It was a pretty arduous trip, through cañons, rocky trails, and bad lands—not very far, only about thirty miles, but unhandy. We hadn't got macadam driveways built in the Mystic Hills yet.

"I'll get the ponies while you fix us up a lunch," Honk said. "We'll ride out, take a few measurements, size up things, and come back by moonlight. It'll be poetic."

"If it doesn't storm," I said.

"I'll drop in at the observatory and get the dope," he said. "If there's anything doing, B. B. will have it on his chart."

Honk cantered up, leading my mount, in half an hour. It was a bright, balmy, buoyant and altogether blithesome May day.

"Leave the medicine-house all open," he suggested. "It needs a good airing. Hang the bedding out the windows; nothing will bother 'em, and the weather observations say continued warm and dry. B. B. took a special reading for me. We'll have a dry wave."

I went back after my slicker at that. Honk refused to take his, and made remarks besides.

We got to our destination about 3.30. The dam site was within a hundred yards of where Honk had expected it to be. He measured, calculated, set stakes, figured levels, computed thicknesses and lengths and other idiosyncrasies, while I jotted down the results in a note-book, in my fine, copper-plate handwriting.

We became hungry, ate our sandwiches, admired the view, and took chews from my plug.

About sundown we started on the poetic return trip. It was sultry. Presently a cloud gathered from nowhere in particular, and it began to thunder and growl like all the sun-dogs were on our trail. It was just a step from that to wind and rain; then, fire and water engulfed us. The earth rocked, the trail melted, the air turned to spray. Honk's hat blew up—that is, off and up, about two hundred feet in the air, took its bearings, and sailed about a mile across the cañon.

I apologized to Honk and donned my

slicker. It wasn't a passing shower, not by six hours. It kept on, even after Honk was thoroughly wetted. And he'll never be any wetter in this world.

It was a cold rain, too. Honk's teeth clattered together like a compressed-air riveter, until he began to feel aggrieved—which he did ultimately:

"Tk-tk-tk," he said. "What'd that-tk-tk weird ass of a tk-tk weather man mean by tk-tk-tk saying it wouldn't rain?"

"He's a wag," I suggested. "A p-funny man. He was joshing."

"I'll josh him!" castanetted Honk. "I'll josh the tk-tk-tk block off of him!"

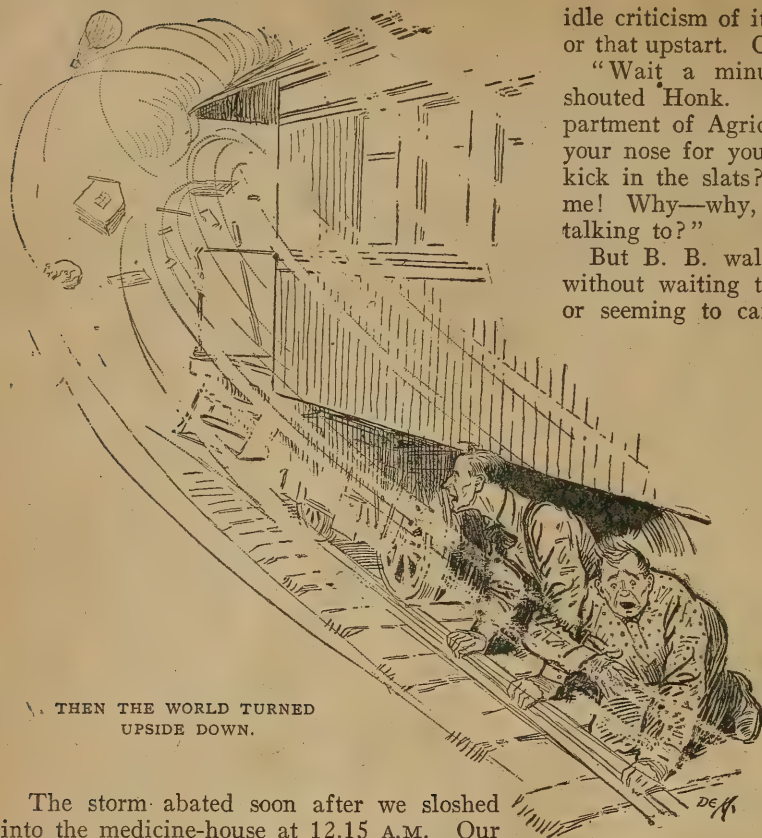
"Mankind never gives credit for the hits," I remarked, "but is always ready to ki-yi at the misses."

"Do you want to be flung over a precipice?" threatened Honk.

So soon as he got well angered his temperature rose and he was warm the rest of the journey. I have noted that fact for the benefit of arctic explorers, icemen and others. Keep your companion fighting mad and he won't freeze.



"WHAT WOULD THE DEPARTMENT OF AGRICULTURE SAY IF I GAVE YOU A PLAYFUL KICK IN THE SLATS?"



THEN THE WORLD TURNED
UPSIDE DOWN.

The storm abated soon after we sloshed into the medicine-house at 12.15 A.M. Our quarters were well soaked. The only things that had escaped a drenching were the insides of the electric-light bulbs.

Honk raved and raged. I sat, wrapped in my slicker, and listened. I wondered if he would touch on every phase of the situation before he ran down. I believe he did. Some he touched twice—and with a rare eloquence and biting sarcasm.

He blamed the whole thing, even to the loss of his hat, on little, round-headed, conceited B. B.

It was no fleeting rankle, either. He was still savage next day. We hunted up the unfortunate prognosticator, and Honk told him about it.

"You're a false alarm, you are!" sneered Honk. "What you don't know about weather conditions would keep a book-publisher busy for a thousand years! A wiseacre, you are, a sage and a seer, I don't think! If I had your head, I'd waste no time with weather! I'd travel with a side-show! A freak, that's what you are, you—you—"

"Ahem!" interrupted B. B., bristling. "Your tone is offensive, sir. The Department of Agriculture does not encourage the

idle criticism of its representatives by this or that upstart. Good day, sir!"

"Wait a minute, you four-flusher!" shouted Honk. "What would the Department of Agriculture say if I tweaked your nose for you, or gave you a playful kick in the slats? Shut up! Don't sass me! Why—why, do you know who you're talking to?"

But B. B. walked away ungraciously, without waiting to hear who Honk was, or seeming to care particularly about it anyhow.

Honk plunged with fervor into the task of getting B. B. eliminated from Valhalla, a proposition not so simple as he thought.

He wrote to the home office first, setting forth a string of complaints that took eight cents to forward. After a due lapse of time he got an answer, a sort of printed slip, stating that his charges would be investigated in regular alphabetical order.

They advised him to keep perfectly calm in the meantime, take no rubber money in payment of bills, eschew worry, live within his means, and to bear in mind that the mills of the gods were too large to do any three-hundred-revolutions-a-minute stunts. All of which was signed with a rubber stamp.

Impatient, Honk took the matter up with Dade, with the P. and P., with the Senators from our State, members of the House of Representatives, and even threatened to write to the President himself.

While all this was going on, B. B. displayed his flags, issued his bulletins, and concocted strange, pathetic predictions to suit his own whims. An odd genius was B. B. What the weather actually turned out to be in the end didn't interfere with his work in the least. His observations were separate and apart.

If the local rain flag needed an airing, he aired it, sunny days preferred. If he thought we needed snow, snow he predicted, May or no May.

He branched out, too, pretty soon. Got him a lot of new instruments, which he in-

stalled with gusto. One day a big box came for him, by express, and not long thereafter Valhalla was stirred by the sight of a captive balloon tethered to the roof of the observatory. B. B. was going to be a scientist for true.

He anchored his balloon with a block and pulley attachment so he could pull her down, climb into the basket and take his skycometer up four or five hundred feet, where he could observe and potter around discovering weather never before dreamed of.

The turmoil of weather and false prophecy continued. It was a record-breaker for Valhalla that spring. Blazing hot days jerked the fruit-buds into blossom, and freezes followed which killed the leaves on the trees.

It was weather that no smudges could combat. When all the vegetables were nipped down to the ground, it would turn warm for a few minutes, rain, change to sleet, end in snow, and freeze up again.

June arrived, with hot flashes and an ominous calm. The first day of June was a smuggy, underwear-sticky day, and so hot you could taste it. Too hot to work; too hot to play.

Honk and I sat on the shady side of the medicine-house all afternoon of that day, with our tongues lolling out, panting. At two o'clock it was bad, at three worse, and at four we gasped and swore we couldn't stand it a minute longer without help.

"Look at that weather-pimple," wheezed Honk. "He's up in his balloon, trying to locate a cold snap. Look at those signals," he sneered. "High winds and unsettled! Faugh! And not a leaf stirring. Fan me, or I perish!"

At that moment a dull, droning sound vibrated in the air. We were so nearly stifled we didn't pay much attention to it at first. The droning grew to a murmur. Honk sat

up, sweating with the exertion, and cocked his ear to listen.

"What's that roaring?" he asked.

"It's the high winds predicted," I said. "Hold on to your hat."

He dragged himself to the end of the car for a reconnaissance.

"Man!" he said. "There's a cloud coming up, and it's coming buzzing!"

It was from the southwest. A big, tumbling, black funnel, with a flying, frothy spume scudding before it.

"A jimmycane!" I yelled. "Dig for cover! Under the coach and hang on to the rails!"

"Look at that fool weather man!" shouted Honk. He had to shout, for the whistling roar was upon us. "He don't know enough to go in when it rains!"

Then the world turned upside down, all the fireworks in the universe exploded, ten million dogs howled and yelped and a billion wild horses galloped across Valhalla. Ever hear the screaming, high-keyed siren of a tornado? Excuse me, I don't care for it.

It don't waste no time with you, though. If it don't get your meat-house the first swipe, you're safe. It is gone.

I unhooked myself from the rails where I might have been cut in two by the medicine-house if the wind had shifted her—but it hadn't—and looked for Honk. He crawled up out of the ditch, muddy and disheveled, but intact.

Finally, the rain slackened. With one accord, we looked toward the observatory, Honk and I. It wasn't there any more. Neither was the balloon.

Honk gouged a large chunk of mud out of his left ear, stared at me in solemn silence for a moment, and then said huskily:

"He's gone."

"Well," I said, "he made good before he left, anyhow. He predicted high winds and unsettled."

TREE BLOCKS TRAINS TWO DAYS.

A GIANT red fir-tree, standing on the west slope of the Cascade Mountains, was recently blown down, falling across the tracks of the Northern Pacific Railroad, where it blocked traffic for two days. Its monster trunk measured nine feet in diameter, and, as there was no saw in that part of the country large enough to cut through it, and chopping would require many days, the wrecking crew set to work to dynamite it.

A number of auger holes were bored into it and these filled with dynamite. The explosion splintered the trunk to such an extent that it could be removed, and also tore up the track for some distance.

The rebuilding of the roadbed, however, was considered but a small task as compared to the removal of the tree by other means than dynamite.

—*Popular Mechanics.*





BEYOND THE LIMIT.

BY BESSIE BARDSLEY.

Written for "The Railroad Man's Magazine."

THEY had a baby doll for waitress at the next place on the line.
(A brakie told us all this giddy news).

One freight-train crew entire had gone raving mad about her—
She could marry any one of them she'd choose.

She was pretty, she was witty, her figure was a dream;
But Brakie Checkers said, "She's not my style."
Just by that we knew he'd "lost out," but we never said a word—
Only handed him a sympathetic smile.

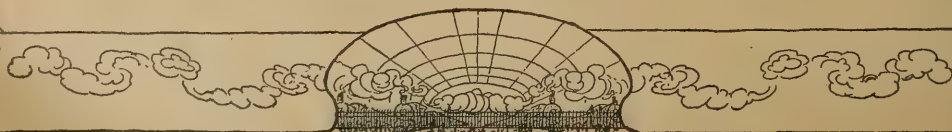
In two days, by the calendar, the "dream" was sent to us,
Because she'd scrapped with every one up there.
She was painted, powdered, made-up, and fourteen dollars' worth
Of puffs and dangle curls adorned her hair.

She passed the other hashers like a pay-train would a tramp;
The manager was dealt a haughty grin.
We could see she thought she owned the place, she'd come to settle down;
Just brought along her charm-strings and moved in!

Could she work? She scrubbed the counter off, she tidied up the shelves,
And took a dozen orders in a flash.
Took them, she didn't *bring* them in; please to understand,
Bluffing was her forte—not slinging hash.

She told the boss to "Go sit down and rest your face and hands!"
Believe me, there was class to her for fair.
She ordered all the girls about, and called the chef a "chink,"
Because he joshed her once about her hair.

We thought the boys all liked her and she liked all the boys—
That's the reason that we stood for so much sass.
But when she said all railroad men just looked alike to her,
You bet she got her time-check and her pass!





Why the Steam-Locomotive Will Stay.

BY ROBERT H. ROGERS.

THERE is a wide-spread impression that electricity is in a fair way to succeed steam on railroads, not only in suburban and terminal service, but for general trunk-line requirements as well, and that the passing of the steam-locomotive to a berth with the cable-car in the hall of antiquities, cannot be delayed much longer.

The truth recorded in this article about the electric locomotive seems to render the above conclusion largely fallacious. In view of the very slight ground which exists for its foundation, it is unfortunate that the peace of mind of railroad men should be at all disturbed.

This is not unnatural, however, as there is much loyalty to ideals and traditions in the ranks of railroad men. It amounts almost to a spirit of resentment toward the innovation, and added to it is a feeling of uneasiness over what must follow in the wake of such a drastic revolution in motive-power.

Some Very Good Reasons Why the Controller-Handle Will Never Take the Place of the Throttle-Lever in Main-Line Railroad Operation in America.

IT has been feared by engineers, since the introduction of the electric motor into railroading, that the dignity which has now become associated with their part in steam traction will largely disappear, and with it a reduction in wages to the scale now paid motormen on interurban lines. Firemen, on the other hand, are concerned over the probability that they will be rele-

gated from their present position of importance to that of helper, or "second man," on the motors, also with reduced compensation.

If such a possibility as a general electrification of railroads now operating by steam should materialize, it would affect many more than these two classes of railroad men. It would, in fact, completely disrupt division and shop organization as it is now constituted.

The engineers and firemen, however, have in reality much less to fear than the men in the shops, for in localities where electric main-line traction is in evidence it has been demonstrated that the road men can be readily adapted to the new order of things; but it is extremely doubtful if places could be found for the present roundhouse hands.

Unlikely Changes.

The electric locomotive has little in common with the steam-engine so far as maintenance is concerned. It has no cylinder packing to renew, no flues to calk, no valves to set, no staybolts to cut out, nor steam-pipe joints to grind. The boilermakers would practically disappear from the roundhouse, and the present work of the machinist would be so modified as to be unrecognizable. All of the minor occupations, such as flue and ash-pan cleaners, grate repairers, brick-arch men, boiler-washers, and many others, would have to be eliminated from the shop organization.

In place of these time-honored standbys, there would necessarily arise an army of mechanics now largely unheard of in railroad work, to cope with entirely different repair conditions, and whose ranks might be scanned in vain for any of the old guard, except possibly the air-brake inspector, box-packer, and turntable man.

All this, however, is merely idle conjecture, because there is scarcely a remote probability of trunk-line electrification. These bugbears are mentioned because they have been bothering railroad men ever since the first electric locomotive succeeded in pulling a train on a steam railroad, and because there is no worry akin to the fear that comes to one whose life's work is menaced.

As the title of this article implies, it is intended to be reassuring to those who look for sudden changes in railroad operation. With that end in view, it may be best prefaced with a few timely statistics. These indicate that 3,233 locomotives were built in 1909, and although this total is less than in former years, it nevertheless, shows a healthy addition to the total steam rolling-stock of the country.

Though the size and hauling capacity of locomotives continues to steadily increase every year, the outlook for 1910 points to at least 5,000 engines. Through their greater development, these will easily equal in power the 6,265 produced in the banner year, 1905.

The mere mention of statistics indicating

a revival in locomotive building, is far from being the compelling argument for the continuance of steam traction. The real augury for its future can best be made after a careful review of what has been actually accomplished with the electric engine, and of the prominent features associated with its cost of installation and comparative performances.

Not until recently have these figures been available for consideration, as the various motive-power chiefs have been occupied in their tabulation covering a very long period, and because they have hesitated to commit themselves one way or the other. Besides these causes of delay, the presentation of such statistics has not been forthcoming, for the very natural reason that there were few to offer.

With very few exceptions, the railroads, not deceived by the optimistic claims and the enthusiasm which greeted the electric locomotive, have largely preferred to play a waiting game. The general policy was to let somebody else take the initiative, and make the mistakes inseparable from any such drastic and costly metamorphosis.

A Pioneer in Electrification.

For a long time the Baltimore and Ohio Railroad, which has been the pioneer in heavy electric traction, was very closely scrutinized, and there is little doubt that what happened there largely dictated the policy of other roads in going to electrification. This road, in 1895, through the latter medium, began the operation of all passenger and freight trains from Camden station, via the new "belt-line" tunnel under the city of Baltimore, to its northern limits, a distance of about two miles.

This departure was on a scale of startling magnitude for the times, as it implied the complete surrender of the steam motive-power in the territories mentioned.

The details of the experiment had been planned with exacting care, and it was wonderfully successful almost from the first day. Those early motors handled with ease the heaviest freight-trains, including always the engines of the latter, which were of no assistance as they were not allowed to use steam in the tunnel.

Although the records are somewhat hazy, the writer's notes, gathered during active participation in that period, indicate that one of the motors is credited with hauling, unassisted, twenty-nine loaded freight-cars, two engines and a caboose. The grade is at

least one per cent, and this train would probably have required the two locomotives to move it.

Slow Progress.

The electric locomotives weighed one hundred tons each, and in view of the fact that they were built with each of their four axles directly driven, the total weight was available for adhesion. Excepting a few improvements which time has brought about in electric-locomotive construction, these pioneer motors differed but slightly in general build and appearance from those now in service.

With the exception of the electrification of the Manhattan Elevated Railroad, formerly a steam road with about thirty-eight miles of track, traversing New York City, this two-mile stretch of the Baltimore and Ohio remained for a long time the only example of main-line traction operated wholly by electricity in which steam had been supplanted.

Although admittedly successful, and thoroughly economical, this line was too short for any definite conclusions as to the real value of such an equipment. Hence little progress was made during the ensuing eight years up to 1903.

During this interval, there was a notable extension of electricity to municipal and suburban lines, particularly to city cable-roads; but this work has no bearing on what has been done toward changing trunk-line traction from steam to electricity, and the effect of the change on steam-railroad employees.

While operating practically alone in an unexplored field, the Baltimore and Ohio effectually developed the fact that electricity affords the only real solution of the locomotive smoke problem in large cities. Its belt-line tunnel would probably never have come into being had not the advocates of the new power made it clear to the city of Baltimore that with it the general train service would be clean and noiseless.

Solving the Smoke Problem.

The full realization of these two pleasing features eventually inclined the New York municipality to the consideration of a similar system to be effected in that city, for relief from the smoke arising from the engines of the New York Central, and the New York, New Haven and Hartford railroads, both of which use the Park Avenue tunnel between the Grand Central Station and Eighty-Ninth Street.

When the agreement was entered into between the City of New York and the New York Central Lines, it called only for the operation of trains by electricity through the Park Avenue tunnel, but the railroad company, from a broad standpoint, concluded that the electric traction should be extended to embrace not only the remainder of its passenger lines in New York City lying to the north of the tunnel, but also extending out into Westchester County for a distance of from twenty-five to thirty miles from the Grand Central terminal.

In reaching this conclusion, it was also decided that the safety of the public be better guarded by the elimination of grade-crossings in the cities and towns along its right-of-way. In almost every instance, the local governments cooperated with this policy; but, regardless of the strenuous efforts of all concerned, the proposed improvements north of the limits of Greater New York came to a standstill because of the lack of unity between the railroad and the board of railroad commissioners.

Why Electrification Fails.

Consequently, the New York Central was temporarily forced to fix the northerly limits of its electric zone at High Bridge on the Hudson division, and Wakefield on the Harlem division, seven and thirteen miles, respectively, from the Grand Central terminal. This interruption to the company's plans occurred in 1906, and many adjustments have since been made. The ultimate termini will be at Croton or Peekskill on the Hudson division, and North White Plains on the Harlem division.

The New York, New Haven and Hartford Railroad, being a tenant of the New York Central between Woodlawn and New York, a distance of about eleven miles, was also forced to provide an electric equipment between these points, but with a similar expansive policy decided to extend its electric zone to Stamford, Connecticut, thirty-seven miles from the Grand Central Station, which gives it the longest electrically-operated main line in the country.

So much for what has been done in trunk-line electrification since the Baltimore and Ohio broke the ice in 1895. The grand total of less than one hundred miles of road (not of track) converted from steam to electricity in fifteen years should not occasion any particular alarm to the men of the steam roads

This mileage does not include unimportant steam lines which may have been converted in that period, although there are very few even of these. Most of them were transformed into trolley roads, and the change has no bearing on trunk-line conditions.

The cost incidental to converting this insignificant number of miles to electric traction has been enormous. It is doubtful if \$25,000,000 would cover it in the aggregate. These were old railroads, well organized, and thoroughly equipped with steam requirements.

Heavy Cost of Installation.

The change they made compelled them to take on a vast number of skilled mechanics hitherto not employed, without appreciably diminishing the ranks of the regular employees. As the percentage of miles electrified is so small compared with the total railroad mileage, there has been no reduction in the number of locomotives required, and each road has added materially to its steam equipment since the partial electrification.

This tremendous initial expenditure constitutes the prohibitive feature against the electrification of present-day steam railroads. While there are a few instances in this country where the change would be permissible from a financial standpoint, in no case would it be undertaken without the assurance that an increase in net receipts would follow sufficient to more than pay interest on the extra capital involved—a condition which is apt to prove extremely unlikely.

In support of this view, the recent comment of President Harahan of the Illinois Central in a report on the proposed electrification of the suburban service of that road is of interest:

"Our suburban traffic is not sufficiently dense to warrant the expense necessary to electrify these lines, and it is evident that even under electrification there would not be an increase in traffic sufficiently large to offset the annual cost of operation. It simply proves that, under present conditions of steam-railway electrification, where it means the replacement of a plant already installed, it is not justifiable either in whole or in part."

So far as the density of the traffic in the above statement is concerned, it may be added that the suburban district of the Illinois Central in Chicago covers about fifty miles of road, and carries, in round numbers, about 15,000,000 suburban passengers every

year; an average of 41,150 per day, or 1,700 in an hour. The net revenue of this business as at present operated under steam, for the fiscal year ending June 30, 1909, was \$109,712, and the estimated net revenue under electric traction is \$284,765, a gain of \$175,053 in net revenue if electricity should be installed.

But before this can be realized there must be an initial outlay of \$8,000,000 to cover the cost of electrification, on which the annual interest and depreciation can be safely reckoned at ten per cent, or \$800,000 a year. Deducting from this startling amount the \$175,053 saved through electrification, the annual deficit under electrical operation is \$624,957.

An increase of 100 per cent in earnings would not enable the suburban business of this road to break even, should it be electrified. If the suburban traffic of the Illinois Central is "not sufficiently dense to warrant the expense," it is hard to see how it could be undertaken by less prosperous roads for whose use it has been advocated.

Executive Attitudes.

Mr. I. Kruttschnitt is director of maintenance and operation of the Harriman lines—probably the most important railroad position in the United States, if not in the world, and any opinion of such an incumbent must necessarily be carefully weighed. Mr. Kruttschnitt has this to say regarding the proposition to electrify the main line of the Central Pacific over the Sierras:

"We have found that it pays to make haste slowly with regard to innovations. Electrification for mountain traffic does not carry the same appeal that it did two years ago. Oil-burning locomotives are solving the problem very satisfactorily. Each Mallet compound, having a horse-power in excess of 3000, hauls as great a load as two of the former types burning ten per cent less fuel, and using fifty per cent less water."

The Pennsylvania Railroad must use electric traction between Harrison, New Jersey, and Sunnyside, Long Island, in connection with its New York improvements, and will employ it to that extent on its system; but nevertheless Mr. A. W. Gibbs, its general superintendent of motive-power, is quoted with the following pessimistic opinion:

"The cost of everything electric is tremendous. The electric locomotives, such as they are, cost more than double the steam-locomotives which they replace, and we must

add the cost of track preparation, of the power plants, and all that goes to make the electric system as a whole.

"The demand has frequently been made that lines leading into terminals should be electrified. In some cases the same demand has been made in the case of cities that are not terminals. Such a demand would involve two locomotive terminals, one on each side of the city, with electrification of the space within the city limits, a supply of special electric locomotives, and the delay consequent upon a double stop.

"To offset the cost of this, there is no saving whatever in operation. On the contrary, the operating cost is largely increased. Even if the railroads could stand the burden of cost, it is quite certain that the public itself would not tolerate unnecessary delays of this kind.

Expense Too Great.

"Naturally the roads hesitate to undertake new electrifications, not only on account of the expense, but also because it is wise for one railroad to profit by the mistakes of another and thus avoid costly repetitions.

"While anything of the kind is possible with an unlimited expenditure of money, we do not hesitate to say that the time has not yet come when such an enormous outlay of capital would be justified by the returns; and, further, we assert that the capital thus diverted would be used to better advantage in other directions."

The Boston and Albany Railroad betrays little enthusiasm for the project, as the following quotation from its report states:

"Some slight economies might accrue in transportation expenses under this operation, but these would soon be entirely absorbed by the additional expenses incurred, and the net saving would be so small as to be almost inappreciable."

Thus run the guarded opinions, nevertheless, of those whose expressions may well be listened to in the study of the transportation problem. Although none of the above quoted have essayed the experiment, it is quite evident that they have carefully weighed what has been accomplished, and that they do not consider the game worth the candle. It may be well to briefly review the experiences of the roads which abandoned steam for electricity as a motive-power.

In the Baltimore and Ohio experiment, the end has no doubt justified the means from every view-point, but it should be borne

prominently in mind that this is almost what might be called a helping service, and is far from the scope exhibited by the New York Central in the City of New York.

The Baltimore and Ohio motors pull trains only in one direction, up the grade from Camden to Mount Royal Station, and return light for other trains, whereas on the former road the power is expended in each direction, and on a vastly greater volume of traffic. This may serve to partially explain why the unquestioned good performance of the Baltimore and Ohio failed to influence for such a long period.

Following the Baltimore and Ohio, the first electrified steam road from which any conclusion of results may be drawn is the Manhattan Elevated. The total cost of its electric installation was \$17,000,000. The operating expense since the change was made has decreased from sixty-one per cent to forty-six per cent of the gross receipts, and its net results, after taking care of the increased capital, etc., show fifteen per cent profit.

The significant fact remains, however, that the increase in business since electrification has been forty-six per cent. The system now carries 250,000,000 people a year, 690,000 a day, or 28,800 an hour. Relying on these figures from published reports, it will be appreciated that forty-six per cent increased business was required to bring about fifteen per cent reduction in operating ratio.

For another prominent example of electrification, and to preserve the sequence, it now becomes necessary to refer to the Mersey Tunnel road, connecting Liverpool and Birkenhead, England. In its four-years' report of electric operation, the net profit, allowing interest, etc., on the increased capital due to electrification, is also shown at fifteen per cent, but it took an increase in traffic of fifty-five per cent to make this possible.

Experiences of the N. Y., N. H. and H.

There is no doubt that the New York Central and the New York, New Haven and Hartford are handling trains more economically in their respective suburban districts about New York than they formerly moved them by steam; but the fact remains that, to enable this to happen, extremely heavy capital costs had to be assumed, and the charges on these costs make the entire operating cost far higher than it used to be in the days of steam operation.

The New Haven road went heavily into electrification. Its four-track main-line from

Stamford, Connecticut, to Woodlawn, New York, about twenty-seven miles, represents the highest development in electric traction which can be exhibited anywhere in the world. The motors embody a combination of trolley for the New Haven proper and third-rail contact while on the New York Central from Woodlawn into the Grand Central Station. They cost the company \$40,000 each, or twice that of a steam-locomotive adequate for the same service.

Besides the heavy outlay for single power units, it requires two of these \$40,000 electric engines to handle an express-train of eight cars on the same schedule which prevailed when steam was in vogue. This makes the capital cost of the motive-power on these trains at least over \$75,000, and in connection with this there must be an interest and depreciation amounting to \$20 a day.

For Suburban Electrification.

The attitude of the New Haven road, after employing electric traction since 1907, may best be illustrated in the following extract from a letter written by Mr. C. S. Mellen, president of that road, and which is embodied in a report of the Electrical Commission of the State of Massachusetts:

"We believe we are warranted in saying that our electric installation is a success from the standpoint of handling the business in question efficiently and with reasonable satisfaction, and we believe we have arrived at the point where we can truthfully say that the interruptions to our service are no greater, nor more frequent, than was the case when steam was in use; but we are not prepared to state that there is any economy in the substitution of electric traction for steam; on the contrary, we believe the expense is very much greater."

This naturally becomes the most concise utterance of any heretofore quoted, as it is derived from actual experience with electric main-line traction. Although, as has been mentioned, only one-half of the New York division was included in the electrification, this was sufficient to place the New Haven road in the van as the exponent of electric traction for trunk-line requirements.

Mr. Mellen further says: "The interruptions to our service are no greater, nor more frequent, than when steam was in use. The business is handled with reasonable satisfaction, although it is believed that the expense is very much greater."

In other words, the inference may be

drawn that the substitution of electricity has simply resulted in maintaining the usual and established efficiency of the service at a largely increased expenditure.

In an address recently given by Mr. L. R. Pomeroy before the Engineering Society of Columbia University, and to which the writer is indebted for some of the statistical matter in this article, he summed the situation in a nut-shell as follows:

"The only cases where electric operation is commercially justified is in congested local passenger situations, where the conditions closely approach a moving-sidewalk condition, and the records show that these cases have been profitable only when a large increase in business has been realized."

It is only fair to the electric locomotive, after the above unfavorable facts, and to the judgment of those who risked the heavy initial outlay for the sake of future results, to say that if the first costs could be eliminated from consideration, which of course they cannot, electric installation would be perfectly justified from the standpoint of economy, as the electric locomotive can be maintained at about forty per cent of the cost of the steam-engine.

Comparative Figures.

The distribution of the amount required to maintain a steam locomotive is approximately as follows: boiler, 20 per cent; running gear, 20 per cent; machinery, 30 per cent; lagging and painting, 12 per cent; smoke-box, 5 per cent; tender, 13 per cent; total, 100 per cent. For the electric locomotive: boiler, 0 per cent; running gear, 20 per cent; machinery, 15 per cent (one-half the corresponding item for steam engine); lagging and painting, 7 per cent (5 per cent less than for steam engine); smoke-box, 0 per cent; tender, 0 per cent; total, 40 per cent.

Presuming that electricity would be adopted as the standard motive-power on the Pennsylvania Railroad, it is estimated that the saving in fuel annually would be 10 per cent, or \$600,013; water saved entirely, \$335,286; other supplies, about a 50 per cent gain on steam, or \$191,274; wages, principally in the reorganization of shop forces, \$1,429,212; repairs, \$2,206,492. Total yearly saving through electric traction over amount at present expended, \$4,762,277. But as large as these alleged savings are, they would not amount to more than $2\frac{1}{2}$ to 3 per cent on the necessary increase in capital which the change would necessitate.

That these slowly cropping facts adverse to the electrification of existing trunk-lines have received consideration is significantly reflected in the thorough course of training for apprentices which is now a feature on the Erie, Santa Fe, New York Central, Canadian Pacific, and many others. In the various schedules for study and practical instruction there is not an allusion to the electric engine, its construction, management or maintenance. The training as outlined plainly discloses that the end in view is to fit the boys to cope with conditions which could only prevail with steam-locomotives, and it would appear inconsistent, to say the least, with the advanced motive-power ideas of the present day, that the expense of this elaborate instruction would be incurred without the prospect of ultimate return in the shape of efficient service.

No Cause for Alarm.

Railroads are not exactly philanthropic enterprises. Many of them supposedly prosperous are staggering under heavy burdens of taxation and unjust legislation, and an incessant fight is in order to make both ends

meet. Hence the policy of their management is keenly whetted to an appreciation of the facts which this article has summarized, and it is to be hoped that the latter are sufficiently convincing to delay even partial electrification to the far distant future.

It has been shown that, while terminal electrification pays in some cases, any further steps in that direction should not occasion any concern to the present employees of the steam roads. It would not indicate doing away with shops, roundhouses or locomotives, and only a very slight reduction in the immediate terminal repair force, which would be more than compensated for by large additions to the pay-roll of men qualified in electric locomotive maintenance.

The former locomotive engineers and firemen of the New Haven road are now employed on the motors at the same pay which prevailed before the change, and are still entered on the roster in the old familiar capacities. A machinist or boilermaker, anywhere, is as well justified to-day in encouraging his son to follow in his footsteps, as he would have been twenty-five years ago, because the time for the revolution, if it ever comes, is far from being at hand.

STORM-GUARD FOR ENGINEERS.

New Window for Protection of the Man at the Throttle on Which Dirt and Moisture Cannot Collect.

LEARNING from experience the dangers that beset the engineer of a locomotive when, in a storm, he is unable to see the track ahead through the front window of his cab, a Dunkirk, New York, man has invented a storm-guard which he claims is a solution of the problem.

There is no work more exacting than that of the man at the throttle of the steam-locomotive. On his vision depends the safety of hundreds of lives.

At times it is impossible for human eyes to see ahead on account of the weather. An engineer is seated in the engine-cab, looking out through an open space. By the arrangement of the device, he is enabled to look ahead without being subjected to a swift current of air and smoke. Neither can cinders, rain, nor snow be driven into his face.

The principal part of the device consists of the regular glass window of the cab and another pane

of glass, somewhat shorter, about six inches in front of it. The sides are joined together and the bottom is open. A deflector, set at an angle, is placed over the opening at the top of the outer glass, the lower end protruding between the panes of glass.

In service, wind, rain, snow, hail, dirt, or objects of any kind, in the air, strike the deflector and are thrown downward between the panes of glass. When the engine is traveling at a good speed, not only is there a current of air downward from the deflector, but there is a slight draft out of the cab and down through the panes. For extreme weather conditions there is a small hinged window which comes down and joins the inner pane, closing the opening. Condensation on the glass is prevented by the current which rushes downward from the deflector.

Buck the grade; an aching back brings an easy conscience.—Objurgations of the Eagle Eye.

AT A RURAL TICKET-WINDOW.

BY GEORGE AUGUSTUS FULTON.

Some of the Joys of Dispensing Pasteboards and Pleasantness Through a Two-by-Three Hole in the Wall to Passengers Who Kick and Cuss.

THE following paragraphs will not be used as a means to determine why the earthworm cannot peel potatoes with a gimlet, or why the saw-horse doesn't saw wood, but simply to call the attention of the traveling public to a few of the travelers with whom we come in contact.

* *

Don't get it into your head that you are the only passenger on the train.

* *

If you are a traveling man, commonly called a "Knight of the Grip," you should keep on playing that game of "42" at the hotel until the train pulls into the station. It makes no difference if you have six or eight pieces of baggage to check, the ticket-agent will have plenty of time to wait on you, even though they are stacked up at the ticket-window seventeen deep.

* *

Be sure and cuss the agent, railroad company, and everybody on the train, even though you only go to the next stop and probably pay as much as twenty-five cents for your ticket and twenty-five cents excess, all of which expense is paid by your house.

* *

Then we have the negro preacher with his clergy permit, who has been sitting in the waiting-room "hobnobbing" with the "sisters" until train time, when he prances up to the ticket-window, planks down his clergy book, calling for a half-rate ticket in Texas, while other full-grown men are paying full fare.

* *

Then an old Son of the Soil strolls into the waiting-room, looks at the clock, combs his whiskers with his fingers, and asks if that is the correct time; proceeds to pull a dollar-and-a-half nickel-plated duplex movement, with rawhide fob attachment, from his overall pocket, and asks to compare with your watch, to know if he has the exact time, only to find that he is expecting his wife's sister from down Brushy Creek next week, and "lowed as how I was mighty nigh kerrect," although he was about sixteen minutes slow according to the regulator. With a contented chuckle he turns

from the window, swaps the half-pound of "Star Navy" from one side of his mouth to the other, and ambles out on the platform with his calloused and sunburned hands rammed deep in his pockets to see "them kyars come in."

* *

I once remember of an instance where an "old nester" in east Texas came up to the ticket-window leading a long-eared mongrel by a string, and wanted to buy a ticket for the dog to a station nineteen miles distant. When our friend was referred to the baggageman, he reluctantly turned from the window with a look of utter disgust, muttering something about "these new-fangled ideas."

* *

The old lady with the black handbag and an armful of bundles is still with us with the same old stereotyped question, "What time is that four o'clock train due?" and who says, "Could I leave these hyar bundles hyar in your charge while I walks up-town and gets me a bottle of snuff and some candy for the children to hum? I clean forgot 'em while I wuz up thar."

* *

Don't pull your wallet out at the ticket-window, take out a twenty-dollar bill to pay for a dollar-and-forty-cent ticket, and accuse the ticket-agent of short-changing you, only to find you were mistaken, and that you had kept four or five passengers from the ticket-window while you were putting on your little show.

* *

Here he comes now! The ever-jovial traveling man. "Give me a ticket to Hearne. All right, how much? Here's your money. Give me the baggage-checks. I'll put them on for you. Have a cigar? What's the use? Cheer up, old man. We all have our troubles."

As he sees the station porter pulling hard on the baggage-trucks, he pushes up behind, turns, shakes your hand, and says:

"Good-by, old man. I'll see you again in thirty days."

ON SHORT TIME.

BY HORACE H. HERR.

Author of "Being a Boomer Brakeman," and "The Evolution of 'Almost.'"

Bartholomew E. Goldsworthy Takes His Name and a Few Other Things to Arizona.

CHAPTER I.

Why He Went to Arizona.



THE Honorable Charles Flynn, who dispensed justice and general merchandise at Winslow, always insisted that but one of two calamities caused men to seek the dry solitude of Arizona—poor health or family troubles.

Bartholomew E. Goldsworthy, aside from having a six-cylinder name, possessed an anatomy of such generous dimensions as made him look like a human tandem compound.

The first time he paid his compliments to the Harvey House dining-room at the terminal, he calmly signed his name to the switch list, turned it in and, with no apparent distress, found trackage for all the loads the lady working the field set out.

This was circumstantial evidence that, so far as general appetite and health went, he had no need for either a bad order-card or a dry climate.

If the Honorable Charles really knew what he was talking about, Bartholomew E. Goldsworthy came to Arizona on account of domestic infelicities.

Bartholomew looked as much too big for the position of roadmaster as he did for the suit of overalls he purchased the day he broke in on the time-table life of the terminal.

It may have been his size which brought him the job, for the superintendent had just terminated an experience with a man who was too small for the place; and, as the Honorable Charles had often remarked, "Better have the plug too big for the hole than the hole too big for the plug."

At any rate, Bartholomew dropped from No. 7 one morning, and when No. 8 went through that night he was roadmaster for the third division, where one hundred and forty-three miles of track spends all the time it is not going up a mountain, going down one or around another. In his new position, Bartholomew was in duty bound to see that about three hundred Mexicans and Indians received nothing from the company under false pretenses.

According to the eminent member of the territorial judiciary already mentioned, it is no small task to teach an Indian which end of the spike goes into the tie, and to thoroughly convince him that he is wasting time endeavoring to drive the big nail through the base of the rail or an angle-bar.

Speaking with some authority, no doubt, the jurist further deposes that, in Mexico, a head is made on both ends of the match for the reason that the native would otherwise strike the wrong end for an hour before realizing that, in order to get results, he must turn it around.

It is self-evident that there were conditions surrounding the position of roadmaster on the third division which made it less desirable than some other places in the official list, and that Bartholomew accepted such a job, in such a country, would indicate that his domestic infelicities may have been of an extraordinarily turbulent nature.

While the division pay-roll insisted on maintaining the dignity of the roadmaster's office by carrying his full name, in less than a month after his appointment Bartholomew E. Goldsworthy underwent an operation.

A large portion of the alphabet was amputated from his personal label.

However, as Bart Goldie appeared to be just as large a man, just as active and just

as regular in his eating as had Bartholomew E. Goldsworthy, it is reasonable to suppose that the operation was not only quite successful, but painless.

When I met Bart Goldie the first time, I was sure that I wasn't going to like him, and just as sure that I would be particular not to let him know it.

It was the second summer the cinder pit was in operation. One thinks of a cinder pit as a hole in the ground, but unless one is able to imagine a very deep hole turned inside out and upside down, the cinder pit was so far from being a hole in the ground that it was a mountain of volcanic ashes.

Instead of digging down for the cinders, a few charges of dynamite, judiciously placed along the big cliff, would bring down more cinders than three crews could haul away in a day.

Over one hundred laborers were used in the work at the cinder pit, and another hundred took care of the unloading and ballasting at various locations along the right-of-way.

Bart Goldie came onto the job as roadmaster just after the pit had opened that summer. After he found out what he was against, he made his headquarters at the pit, making little side trips over the division, keeping in close touch with the progress of the work.

Coming east one afternoon, a few days after the pit had opened, I got an order at Ash Fork to set out my string, pick up all the empty cinder flats in the yard, run to the cinder pit and tie up.

Of course, I said a few uncomplimentary things about certain individuals connected with the road, which found a unanimous indorsement from the entire crew.

After showing our independence by taking thirty minutes more time than usual in which to eat and putting it down on the delay report in a bold, bad hand, we went out to shuffle the cars and make up our train.

It was turning dusk when we pulled in on the siding at the pit and tied up for the night. It was evident that we had drawn our summer vacation; we were to be one of the three crews in the hauling service for some time, at least, and, I guess, every one on the crew felt rather bellicose.

I had reached the popping-off stage, myself, and, just as soon as the doghouse was in the clear, I started out to find the *jefe*, as the Mexicans call the big boss, and unload some of my pent-up ire in his vicinity. As a result I met Bart Goldie.

I found Bart engaged in a rather extraordinary pastime down at the end of the spur, where a dozen outfit cars served as temporary quarters for the foreign population.

It seems that Goldie's education, while it was really college-made, was mighty weak on foreign languages, especially Spanish. Quite naturally he had been forced to make up the linguistic deficiency by a generous use of his hands, so generous, in fact, that his fist, when neatly folded and placed in a position near one's nose, looked like a Gould knuckle.

It had come in contact with Romero Garcia's left lamp. When Romero had sufficiently returned to consciousness as to be positive that he had not been caught beneath a cave-in from the cinder cliff, he did not take kindly to the roadmaster's method of argument, and planned to take summary revenge.

Romero, unlike the average care-free Mexican, was of fair size and of sullen and defiant disposition. He ruled his outfit through brute force, and had been a source of trouble long before Bart Goldie came on the job, for he stirred up dissension on the least provocation.

It seems that Goldie had insisted that the gang was not loading the flats with a reasonable degree of speed. When he found Romero sitting in the shade smoking a cigarette, he motioned him back to work.

Romero became sullen, and his sullenness spread with strange contagion to the rest of the gang, and, during the course of the afternoon, Romero, acting as ring-leader and spokesman, informed the new *jefe* on certain little matters and endeavored to run in his bluff. Goldie had, in his rebuttal, introduced a knockout argument in the form of his right fist.

This was several hours before the 660 pulled in on the siding with the cinder flats, and, quite naturally, when I walked around the outfit cars and found a six-footer doing a juggling act with a track gage and a Mexican, I wasn't sure whether I had suddenly dropped in on a Nicaraguan revolution or a vaudeville performance.

Goldie thoroughly convinced several of that gang that a gage-iron can be used for other things besides measuring the distance between rails, and that night they took Romero and two of his mutineers down to the terminal for treatment.

With three of the gang bowled over, the rest of them happened to remember that the *tortillas* and *frijoles* were ready. Wifey would be awful angry if she had to wait

supper on them, and a prairie dog didn't have them beat very much when it came to getting into the clear in a hurry.

When the show was over Goldie turned about and saw me standing near. Of course the light wasn't extra good, and I had thoughtlessly picked up a side-stake as I came up.

"What do you want? I'm running this job!" It was evident that Goldie was still foaming a little. I promptly dropped the side-stake and hastened to assure him that, from all appearances, he was running the job and that I had no desire to make application for his place.

When he realized that I was just a harmless conductor, and if not thoroughly civilized at least partially domesticated, he began to laugh.

"Guess I'm getting nervous," he remarked. "Every time I hear a fellow coming up behind me I think he wants to play mumblepeg on my back with a butcher knife. Talk about your football games. Bucking center is parlor pastime alongside this job. That gang will work the way I want, or I'll put them all in the hospital!"

It was the way he said that last sentence which prejudiced me against Goldie. There was something of the bully in his manner. That evening, over at the mess-room when we were planning the work for the following day, he remarked:

"To-morrow morning, we will leave here with forty loads and—"

"We have never hauled more than thirty-five with one of these hogs," I interrupted.

"We'll take forty loads," he continued, just as if he had not heard me. "We can get away from here by six o'clock, get down to the curve below Riordan and have the cinders unloaded before the passenger-train runs us in."

Of course, after having been accustomed to leaving the pit at seven o'clock—as we did the first season it was operated—that one hour made me very enthusiastic. We had never tried to unload even thirty flats on the Riordan curves, ahead of the morning passenger, and I made a mental note that Mr. Goldsworthy, our new roadmaster, had some few things to learn in operating cinder trains.

But the next morning, when he came down and almost kicked in the caboose-door, I realized that we were going to leave at six o'clock with forty loads just as he said. That's just what we did, and we unloaded the string and were well in the clear when the passenger came along.

After I had been working with him for a week, I learned that when Goldie said: "We are going to do so-and-so," you could take it as a part of the Standard Book of Rules. While he evidently knew more about college football than he did of train tonnage and cinder plows, he had decided views about ballasting track and improving a right-of-way.

We had been working about ten days and it began to look as if the train-master had lost us all together. I began to feel a longing for an emery-wheel and a real bath with a sandpaper rub-down. We had been eating canned corn and corn in the can, three times a day, until every time one of us tried to yell it sounded like the tin solo at a charivari.

Then the 660 got the idea that she was a street sprinkler and went to leaking like a sieve, so, for the good of the order, I wired the train-master to run us in to Winslow for general repairs.

Nothing hurts a train-master more than light mileage. The Old Man, rather than let us run from the pit to the terminal with an engine and a caboose, sent a message ordering us to run extra and do whatever work Goldie might find for us on the way in.

There was a slow order out on bridge 356, over Cosnino Creek, and it seems that a cloudburst up in the mountains had sent a torrent of water down that way, doing quite a little damage to the embankments.

"We will take five cars of cinders," remarked Goldie. "Pick up the section gang at Cosnino and see what we can do at the bridge."

Of course, puttering around there for several hours, with an appetite which would have made business mighty good at the Harvey House gnawing at my vitals, particularly appealed to me. But we did it just because Goldie said we would.

When we got down to the bridge, we found the water hurling down a ravine which paralleled the track for a half mile. Where it emptied into Cosnino Creek at the bridge, it had taken away enough of the bank to let two telegraph poles down, and the wires were swishing about in the current.

I sent back a flag, and Goldie began to exercise his sign language for the benefit of our foreign passengers, with the result that they were shortly working a bit faster than they had ever worked before.

While I acted as a sort of straw boss over the unloading, Goldie took four of the Mexicans down to see if he could get the tele-

graph wires out of the water. While the water in the ravine was not more than waist deep, it was running swift, and Cosnino Creek was really a torrent.

After hauling and tugging for some time, Goldie managed to get the wires free from the poles, with a view of fastening them on the superstructure of the bridge, until the linemen could come out and restraining them.

The Mexicans, being by nature very hostile to a bath, didn't take kindly to going into the water, but finally three of them were either persuaded or frightened into wading out to attach a rope to the wires so that they could be pulled over to the bridge.

I guess the natives didn't understand the nature of a telegraph wire, for when they got out to them, instead of putting the rope about them, it looked much easier to just take hold and pull them in.

They drew the grand surprise. The minute their hands closed about the wires, there was a bunch of yells that would have made an Apache war-cry sound as gentle as a benediction. Two of those Mexicans came out of the water, scrambled up the bank, and started down the track. I'm a goat if you could have caught either one of them with a Prairie type on a down-grade. Most of the time they were running wheel to wheel, for when one would get ahead, the other would reach for him and pull him back, and if you ever see two Mexicans, just touching the high spots, headed toward the line, don't try to stop them, for they are some scared.

The third one furnished the real excitement, and, incidentally, obliterated my prejudice against Bart Goldie. He let out one agonizing screech and went under. He came up in a second, and started to produce another vocal noise; but the best he could do was to give us a very realistic imitation of a whale spouting; then he went off his feet, and the swift current shot him out into Cosnino Creek.

I knew it was all over except burning the candles—but I hadn't figured on Goldie.

By the time I was off the cinder flat, Goldie had reached the steep bank. I knew that Cosnino Creek below the bridge was little less than a cañon, and that it would be impossible to get out of it without the aid of a rope.

I wanted to explain this to him, but by the time I had covered half the distance to where he stood, he had thrown off his hat, taken a festive skip and a hop, and just as if he was taking his first plunge in the old swimming hole, he went in, head first.

The bank was thirty feet high and almost as smooth as a building wall, and I was positive that the job of roadmaster would be open to competition again within thirty minutes.

Nobody ever accused me of having a brain-throb or an idea, so I guess it must have been "Dude" Bowling, my brakeman on the cinder end, who went to the caboose after the rope.

I know I was hypnotized by the sight in the water, so that all I could do was follow along the bank and make mind bets that "they'll both stay down this time."

I guess I lost a million dollars before I realized that Goldie had found a piece of rock sticking out of the bank and was holding to it with one hand and keeping the Mexican's head out of water with the other. Then Bowling came up with the rope, and the rest was easy.

Goldie held to the rock while Bowling and I pulled the Mexican out, and then we dropped the rope over for the roadmaster. In a few minutes he, too, was standing on the top of the bank. The Mexican wasn't standing, understand. He was more or less water-soaked, and wasn't a bit enthusiastic about coming back to life. But Goldie wrestled him around for ten minutes, and he finally began to mutter something about "the much grand *jefe*," which would have embarrassed Goldie if he had fully understood it.

From that day on, Goldie was elevated to a station of reverence with every Mexican on the division, and some of the American population that I know decided they thought a great deal more of him than they would care to admit in public.

"We won't say anything about this when we get into Winslow," remarked Goldie, as we climbed on the caboose; and since Goldie said we wouldn't, we made a noise like a long silence, but it finally got out through the Mexicans.

On the way in that evening, I found that Goldie had made no permanent arrangement for his roundhouse accommodations, and I suggested that he join me in my two-room adobe over in Old Town.

It was only a few hundred yards from the tracks, and there was a cook-stove and a few pieces of chinaware, not to mention the furniture, so that a fellow could live very comfortable at a small cost.

The idea appealed to the new roadmaster, and he went over with me to try it out. The result was that he camped right there, and,

in less than a month, I was convinced that the Honorable Charles Flynn was correct.

Family troubles brought Goldie to Arizona.

About the second time we took our chairs outside and leaned back against the adobe wall, when all the fireworks were hung out in the sky and the cool breeze from the San Francisco mountains drifted down to twist the smoke from our pipes into funny shapes—about the second time we sat out there, and heard the laughter drifting over from a Mexican dance which was going on farther down the crooked street, and the dreamy guitars and mandolins in the strains of "La Paloma"—he came clean with it.

Bartholomew E. Goldsworthy had been playing the rôle of the sheep with the brunette wool. He had been educated for a civil engineer, and had turned out a champion football player.

By putting two and two together, I managed to figure out that he really knew the difference between a "T" square and a surveyor's chain, and that his family troubles were not so much with his own family as with a young lady of another family who had expressed an aversion for black sheep.

I've always been so busy trying to keep my name on the pay-roll and my caboose in the clear, that I have had no time to give the woman question much consideration; but the Honorable Charles says that if it wasn't for his wife he would never have owned the only general merchandise emporium in Winslow, and he would never have been elected to the dignified position of justice of the peace.

So I suppose there are really some women who could put enough steam in an old scrap-iron pile like me to make him get out and make the running time with his full tonnage.

As for Bart, he seemed to be on short time. There were certain circumstances which he discussed very guardedly, which convinced me that he wanted to do something worth while and he wanted to do it quick. It looked as if it might be a case of two fellows running for the same station, one of them coming down grade and the other going up.

Bart had the up-grade to climb, and a poor start, and, knowing a few elemental truths about human machinery, I couldn't see how he was going to win when he was out there by himself, with nothing much to think about but the way he had slammed the gate in the face of opportunity.

Since they have put a double track around the world, the old ball seems to have shrunk

considerable. No matter where you go you're pretty close to some place else, and it surprises a fellow when he jumps a board bill in El Paso and meets the landlady in Chicago a year later, or when he bids a friend a fond farewell in Mexico City, only to meet him in New York.

It's a very small world after all, and I'm not surprised to know that Bart Goldie should come to Arizona for the express purpose of hiding himself from a certain young lady, until he had made a man of himself, only to put on his working-clothes and meet her here face to face, when he hadn't had a shave for a week.

One night, over at the cinder pit, Bart came into my caboose and picked up an old official list, which gives the names of every one connected with the management of the road down to the division superintendent's hired girl.

He looked it over rather careless-like, and started to throw it back on my desk, when a name near the top arrested his attention.

"A. R. Martin, General Manager Western Lines," he read. Then he just let the book slip from his fingers. After a minute he said: "Isn't that funny?"

"Funny," I replied. "Funny, I should say it is. I've laughed myself sick over it many times."

I guessed my sarcasm lacked steam, for Bart never noticed it.

"I'd like to see A. R. Martin," he continued. "But of course he can't be the same man."

"If you want to see him," I volunteered, "you will probably have plenty of opportunity this summer. I understand he is coming through here next week. His family generally puts in several weeks at the Grand Cañon."

If Bart said another word that night, it was after I had gone to the hay, and when I once get into the hay—well, I've been known to sleep several hours after dawn when I knew my pay-check was waiting for me over at the agent's office.

CHAPTER II.

The Lady at the Wreck.

IF you ever attended the B. of R. T. annual ball at Winslow, you know just as well as I do that it was attended by every railroad man who was fortunate enough to be in town—wearing his best pair of overalls.

The Winslow Symphony Orchestra practised from one year to the next just for that ball, and then there were times when it would run out of pieces and have to go back to the first number; and that was a real orchestra, too.

There was "Dad" Matta, the human cube four feet any way you measured him, who played the violin what time he wasn't selling chili and beans over in Old Town; "Dutch" Mattison, who could blow more music out of a flute than I could churn out of a hand-organ; "Ken" Gillett, who could triple-tongue a cornet until you was sure he would stutter when he tried to talk; and the little lady with the brown lamps who could ramble over that piano until you stood about as much chance of counting her fingers as you would the pickets on a fence from the window of the limited when she was four hours late and running down-hill.

Sometimes the ball was held in December, and sometimes in July. One year it run in sections, the first going by in the winter and the second section coming along in the summer; but as it was warm in Winslow all the time, the season of the year never cut much of a figure except on the price of eggs, which were high in the summer and higher in the winter. I suppose the hens were more to blame than the heat.

The year that Bart Goldie came to the third division, the annual ball was held in the middle of July—not that Bart was there, but that my crew just happened to be in town, thanks to the disposition of the 660 to choke up in the nozzle.

I planned to be there in time to see Mayor Bauerbach, who owned the only dress suit in town, lead the grand march; and I promised myself that when the janitor locked the hall the next morning, he would have to put me out.

I put in all afternoon creasing my black trousers and trimming some of the fringe off my best coat, and I fixed up my shoes so that they looked as if they'd just been turned out of the paint-shop.

When the six o'clock whistle sounded over at the roundhouse, I decided that I would put on my good clothes, treat myself to supper in the Harvey House dining-room, and get used to myself being in company.

More than once I wished that Bart could have been there, for a college education don't have much of a chance to show off when it's associating with Mexicans and Indians all the time.

Over on the siding near the offices, pri-

vate cars Nos. 8 and 11, the latter the traveling office for the division superintendent, were lined up together. I walked down to the despatcher's office to take a look at the board, and I had to laugh when I saw Bennett marked up for Extra West at 6.30 P.M.

If there is one thing that Bennett would rather do than draw his pay-check, it is to dance. It took no vivid imagination to picture Bennett when the call-boy caught him. Just as I was leaving the office with my glad flags out, he came in to get his orders and register out.

"Going to the ball?" I asked.

"No," he snapped.

"Oh, that's right," I continued. "You don't care much for dancing."

He turned around and gave me a look that would have stopped a wild engine, and not only requested but demanded that I take a long journey to a warm climate.

Instead, I went as far as the dining-room, walked right in as if I had time-card rights, and took a chair at one of the seventy-five-cent tables.

I had hardly decided which dishes I would have switched out for me, when in walked the Old Man, and A. R. Martin, the general manager; and, come to think of it, there were two ladies—but I saw only one for the time being.

During supper—I suppose Bart would have called it dinner—I kept my eyes on that young lady. She was a little the best I ever saw—a real observation Pullman with all the latest improvements.

She looked like a million dollars' worth of one-dollar bills, and as I finished the last of three different kinds of dessert, I just says to myself: "Young lady, if you ever want a partner in a Home-Sweet-Home waltz, I'd sure like to have the job."

In fact, I hadn't got her off my mind when the music started for the grand march. I was standing there looking around to see if there was any young lady in the hall who even remotely resembled her, when some one touched me on the arm and I turned about to meet the freckled, oblong, wall-eyed face of the call-boy grinning at me as he stuck that dirty book before me.

"Extra West in ten minutes," he said, like a parrot that didn't know anything else.

The mayor was just coming onto the floor, his lady on his arm, and his white shirt in that low-necked vest showing up like a new coat of paint on a signal-block.

"Hurry up an' sign, 'cause I've got to find yer shacks yet." —

I never wanted to see how hard I could kick some one as bad as I did right then. I believe I could have put that call-boy on the peak of Bill William's mountain from a standing start.

"Well sign it, Baldy, sign it. It's the wrecker, and I've got to get th' rest of yer crew."

With music in my ears, I put my official signature on the book, and started for the despatcher's office feeling as festive as if I were riding a pilot-beam into a head-on collision.

When I reached the office I found the wrecking outfit standing on the main line and the switch engine was coupling into the two private cars, preparatory to bringing them out and setting them on behind my caboose. I hastened into the office and asked the cause.

"Bennett's in the ditch beyond Moqui!"

If I had that man's disposition, I would stay away from a railroad. Just because he couldn't stay in for the ball, he goes out, and the first little bridge he comes to, he puts two engines and eleven cars through it, just so some other fellow will have to leave the festivities and go out and pick him up.

"Any body hurt?" I asked.

"Not a soul," answered the chief.

That showed plain enough that it was a put-up job.

"How soon will you be ready?" I asked.

"Just as soon as you sign these orders."

"What engine do I get?"

"Take one of the yard engines. The 2303."

There I was with my best trousers on and a new shine on my shoes. There wasn't anything to do but sign the orders and get out of town.

When I took the orders out to the engineer, I looked to see just what I had in the way of a train. The wrecker and the coal-tender, three cars of ties, a water-car, tool-car, my caboose, and private cars 8 and 11. The Old Man and the general manager were going out with me, and then I heard a voice which sounded a great deal like that of the young lady I had seen in the dining-room.

"But, father," she was saying, "I never saw a real wreck in my life, and I'm going along."

"It's no place for a woman, Lois. You'll just be fatigued."

The idea of a man being the general manager of a railroad and saying that a wreck is no place for a woman, especially a beau-

tiful woman. But of course, I couldn't stop and tell him that he was wrong, so I just yell, "Aboard!" and gave Denny Reagan the high-ball. As the young lady was on the car platform when we started, the question solved itself and she went along.

The 2303 had seen better days, but Denny Reagan got more out of her that night than I ever dreamed she had. Of course, she made a few little side trips out into the surrounding country; but she always came back to the rails and kept running, and just so long as the whistle worked, Denny could make any engine run.

We dropped down through the Moqui sag, the old boat shooting a stream of sparks from the stack that would have made the tail on a comet look like a glow-worm, and while we hardly made the limited's time up Moqui hill, we were going at a pretty fair clip when we topped the ridge.

Bang! bang! went the torpedoes, and the tail lights from Bennett's caboose showed up less than a mile down the track.

The wreck wasn't so bad as it might have been, for both engines of the double-header had crossed the little bridge, and, while they were on the ties, they were still right side up.

The piling under the short trestle had burned away. The eleven cars next the engines were scattered about in various degrees of dilapidation. Some of them were ready for the tooth-pick box, while others would have made better kindling-wood.

The section hands from Moqui beat us there, but the Mexicans were so busy caching out bottles of beer and shoes that they had done absolutely nothing else.

Of course, the first thing was to get the steam derrick down to the wreckage and swing it off the right-of-way. We coupled onto Bennett's caboose, cut off the string that was still on the rails and pulled them back to the siding at Moqui, switched the wrecker ahead and went back to put in the balance of the night opening up the track.

When we got back to the wreck, another derrick and wrecking gang had arrived from the cinder pit, and with it was Bart Goldie.

From the minute he stepped off that wrecking train things began to move. The Old Man and he had a very brief conference, while the general manager stood by and listened.

"It's up to you to say just what you want to do, Mr. Arnold," I heard Bart say to the Old Man. "If you want to stand for the delay, I can build a shoo-fly around this in twelve hours."

"But what do you think best?" questioned the superintendent.

"If you were not here and I had to act on my own responsibility, I would open the main line in the shortest time possible," replied the roadmaster.

"Which means—"

"Which means that I would roll some of these badly demolished cars down the bank."

Then the general manager spoke in a modest voice as if he was apologizing for being on earth.

"Don't you think, Mr. Arnold, that it is always a pretty good rule to clear the main line as soon as possible, especially when we have mail-trains coming down on us and the government checking up every trip we make?"

"It's expensive," volunteered Arnold.

I suppose Bart's idea of railroading had not prepared him to see officials stand back and study over a move as if they were playing a game of checkers. At any rate, the two officials were still discussing the question when Bart started his men to work. By the time they had decided to clear the track at any cost, he had already rolled two box cars down the bank.

The Old Man found himself taking orders from Bart just the same as the rest of us. The new roadmaster, standing in the very center of the debris, on a box car which had been stood on end, was directing the two derricks and a half dozen various squads of laborers at the same time. If he made a false move, it would take more of an expert than I to tell just where it was.

Off to one side of the track, one gang had started to burn some of the wreckage. The big fire flared up, making a ragged silhouette of the entire mass. Bart's six feet of nerve and muscle seemed to stick out as the big feature of the picture.

I was recalled to the fact that there was a lady in the wrecking party. Martin was standing off to one side watching the work, apparently well satisfied with the progress being made. I had just come down off the apex of the pile of wreckage following a consultation with Bart, and, as I passed by Martin, I heard that musical voice again:

"Who is that man standing up there, father?"

"That's the roadmaster."

"But what is his name?" insisted the young woman whom I now distinguished in the shadow by the general manager's side.

"Goldsworthy, I believe," replied her father.

"Isn't that funny?" After a little pause she continued more for her own information than for the enlightenment of her father.

"But he can't be the same man."

About that time, I was beginning to believe that it really was funny, for Bart had said something like that the night he was looking over the official list and found Martin's name at the head of it.

"Well, daughter, I don't know exactly what you are talking about, but I hardly think he is any one you ever saw before."

As I walked away, I had to think of the time I was standing on a street corner down in El Paso, and a fellow kept looking at me until I began to wonder if I had ever boarded with him. Finally I spoke up:

"Was there something that you wanted, sir?"

"I was just thinking," he replied, "that you look as if you might be able to change a five-dollar bill for me," which simply goes to prove that when a fellow thinks on surface facts he is always just about four dollars and ninety-five cents wrong, and I was just about ready to bet my monthly insult against a blind gasket that, after all, he was the same man.

For the next half-hour, I watched Miss Martin more than I did the wrecker, and she watched Bart Goldie more than she did anybody or anything else.

If Bart had known that the general manager and his daughter were standing less than a hundred feet from him, much interested in his work, he could have done nothing more to appear to the best advantage.

Of course, I don't know what the girl thought about him, for no one can tell what a woman thinks except the woman herself, and about half the time she's wrong. But when Martin insisted on taking his daughter back to the private car, just as they were passing by me, I heard him remark:

"That man Goldsworthy is a wonderful worker. Wonderful! I shouldn't be surprised but that he gets this litter cleaned up by daylight."

"I should like to get a good look at him," said the girl, "close up, so I could see his face."

"You'll probably have the opportunity in the morning, for—" they passed out of my hearing and I was half convinced that Martin was, after all, a man of excellent judgment, not only of daughters but of desirable roadmasters.

The sun was just coming up over the mesa beyond Moqui when Bart gave me the order

to take the wrecker back to Moqui, and bring back a couple of loads of ties.

The track had been cleared, and all there was left to do was to replace about two hundred ties, and put in a couple of rails. With the trestle cribbed, the main line would be in temporary repair.

I suppose Reagan, being used to kicking cars around in the yard, handled our train a little rough for private cars, for when we got the ties ahead at Moqui the Old Man came out of his car, and I could tell, by the red spots on his face and the way he hadn't combed his hair, that he wasn't in an angelic mood.

I couldn't help but wonder how he would have felt if he had been up all night, wearing a pair of shoes that were two sizes too small for him, getting mud and oil on a pair of black trousers which, besides having cost \$5.50 two years ago, had been hand-pressed the day before; and on top of that knowing that the mayor was a strutting around the ballroom down at Winslow with a sparkler in his boiled shirt as big as an electric headlight.

I couldn't help speculating on what he might have done under those circumstances if a dish-faced piker like Bennett had kept asking him, every time he got within telegraph distance, if he could have the pleasure of his company for the next dance. I really would have enjoyed being superintendent that night. I would have tied a piece of hardware onto Bennett the size of a Baldwin boiler.

When we started back to the wreck, the Old Man climbed on with us, going down to see how much fault he could find. Bart had the gang cribbing the trestle when we got there. I admit that the crib looked as if it had been built contrary to all the laws of statics. It was a fine imitation of a rheumatic pig-pen.

"That will never hold a train," growled the superintendent, when he reached Bart.

"We will see," replied the roadmaster. Knowing Bart, I held my breath for a minute to see if the superintendent would argue the question. He never said another word on the subject—not there at least—but went nosing about, looking into every nook and corner as if he had lost his carfare.

Goodness only knows what he thought of the job, but so far as I am concerned, while it may have been lacking a little finish in spots, it had been done in less time than I had ever dreamed possible. Two hours later, when No. 7 whistled for the board at Moqui,

the operator gave her the white wing and she drifted down to the scene of the wreck.

Bart and the superintendent were still down there. I suppose the Old Man was just waiting to see how far into the ravine one of the Pullmans would go when it hit that crib, which had been built like a pyramid stand on its head. We had tried it out with the wreck trains, and it had hardly sagged an inch. At the distance of half a mile I couldn't tell just how she acted under the varnished cars, but I could tell even from that distance that the passenger-train had not stopped, and when Angel, the next station beyond, "OSed" No. 7, she was on time.

I was still standing in the center of the track watching Number 7 as she crept across the damaged trestle when the general manager walked up to me.

"Number 7 is on time, isn't she?" he asked.

"Be here right on the dot," I replied, glad of an opportunity to be of any little service to the father of that daughter—more so since he was working on the same road.

"Then the wreck has caused no delay to our passenger service?"

"Not a bit," I answered.

"Isn't that rather rapid time in cleaning up a mess like that?"

"Well, Mr. Martin," I replied, "I've helped clean up a good many of them, and this is the best job in the shortest time I ever heard of."

I just made a mental note that Bart Goldie owed me four bits for that boost.

"Are you going back to the wreck soon?" asked the general manager.

"I'll run down to pick up Mr. Arnold and Mr. Goldsworthy, before going into Winslow. I'm waiting for running orders from the despatcher's office now. Don't expect to start back until Number 2 goes in, as Goldsworthy wants to see her across the crib before he leaves."

"When you get down there, please tell Mr. Goldsworthy that Mr. Martin wants to see him in car No. 8, when it is convenient for him. If he has nothing to hinder, tell him to come over and ride to Winslow with me."

"Yes, sir, I'll tell him," I answered.

"And I'll be much obliged to you, sir," replied the general manager. I really felt for the first time that he was a decent sort of a fellow—almost as near human as a brakeman or a conductor.

Number 2 crossed the crib and came by on time. When she was over the switch, we ran around the string with the 2303,

brought the two private cars out on the main line, went in for the rest of our short train, and pulled out and coupled the varnished carlets on behind.

I went over and insisted that Reagan handle them with plush gloves, and he really did a nice, ladylike job of it. After having backed down to the site of the wreck, we had to wait another half-hour for Bart.

While we were waiting, I went over to where he was and delivered the message from the general manager. Bart accepted it with the joy of a prisoner taking a twenty-year sentence. He looked down at his khaki clothes—that is, they were once khaki, they were now benzine, sand, molasses, grease, and in one spot, nothing at all. During the night, he had grown careless with one of the fires and had lost about four inches off the bottom of his left pants-leg.

After I had delivered the message, he pulled a wad of waste from his hip pocket, wiped it across his brow, not knowing that it left a smear of oil; rubbed his left thumb, which had been badly mutilated by a falling jack, and muttered:

"And I have not had a shave for days."

"Never mind, Bart," I cut in, feeling rather peevisish at the way he stood on a little formality of that kind. "Come over to the caboose and I'll have the rear shack give you a shave and a hair-cut, manicure your finger nails, and—"

Bart slowly looked me over. He noticed the fading crease in my trousers, the remnant of a shine on my shoes, and the stiff hat I was wearing—and he smiled.

"No," he says, "if Bowling turns out such dude conductors as you, I guess I'd better stay away."

"Never mind," I answered, "I hain't been

(To be continued.)

livin' beyond my income. I can afford all these good clothes. Bart, you're a friend of mine, and I know you'll be pleased with my good luck. I made a fortune last night."

"Gambling?" asked Bart.

"Yes, gambling. I won so fast I couldn't keep count. You remember that night up at the pit when you found something so funny in the official list. You read A. R. Martin's name, then you looked wise and remarked that it couldn't be the same man. I didn't think much of the remark that night, but, having nothing much to occupy my mind, I went to gambling on it. Let's see, at midnight, I had won \$1,847.27. I bet myself that he was the same man."

"And how do you know you won?" asked Bart, with an imitation smile.

"By the way you kept away from him, and by what his daughter said."

"His daughter!"

If Bart had not been impressed with the train-load of money I had won, he was real excited over a portion of my proofs.

"Yes," I replied, "his daughter. She is back there in the private car."

"Baldy, have you a razor in your caboose?"

"Nothing but a broken looking-glass, Bart."

"Well, tell Mr. Martin I'll be over in a few minutes."

As Bart climbed onto the caboose to wash some of the soil from his anatomy and dig the cinders from his hair, I gave Reagan the high-sign for Winslow and climbed aboard private car No. 8, not feeling exactly sure whether I was the general manager's office boy, Bart Goldie's valet, or just a common conductor who had been absent from the annual ball of the B. of R. T.

AN ODD LOCOMOTIVE.

AN electric locomotive, that straddles a line of moving vehicles in the same way that a farmer might straddle a row of growing vegetables in crossing a field, is a commonplace sight near Bremen, Germany. The locomotive is used for hauling canal-boats, and runs on a quay that has

to be kept clear for the passage of drays and other vehicles. Consequently, it was built in the form of two U's, connected by a girder. One side of the locomotive runs on a track on one edge of the quay and the other runs on a track on the opposite side, while vehicles have a clear passage under it.

A good crew can usually tell the time by the steam-gage and the schedule card.—Philosophy of a Despatcher.

Pioneers of the Canadian Pacific.

BY JOHN WALTERS.

TRANSCONTINENTAL railroad building seems to belong to such a dim, remote past, that it gives one a creepy feeling at first to talk with the men who actually carried on the work of one of its most spectacular achievements. But after meeting a number of them and finding them still enjoying life, and as young as ever, one begins to feel that the C. P. R. isn't so ancient, after all.

Pushing a road-bed through the wilderness of southern Canada, on to the western limits of British Columbia, was a heavy undertaking, and now and then there was excitement enough for every one, and plenty of trouble always in store for those in search of it.

Experiences of the Rough and Ready Crew Who Helped to Build Canada's Greatest Railroad, Many of Whom Are Still Holding Down Their Old Jobs.



Of course, J. M. Egan, who was superintendent on the Canadian Pacific Railway during construction, from 1881 to 1886, didn't mean to tie up the road when he sent out a message, a

couple of years ago, announcing that he was making a trip over the line, and would be glad to meet all the old-timers once more. He simply didn't realize that on the C. P. R., as everybody in the Dominion calls it, no one ever dies and still fewer resign.

The history-makers of the Canadian Pacific are still walking around, hale and hearty; and so numerous are they that Egan thought his car was being mobbed when he pulled into Medicine Hat. He was delighted to find that it was only the old gang, which had taken his message to "all," literally. No other railroad on earth can boast such a complete living history as the C. P. R.

I had hardly got settled comfortably on one of the through trains which cover the longest run on the continent, from Montreal to Vancouver, 2,897 miles, before I was introduced to S. R. Poole, who made the pre-

liminary surveys through that part of the wilderness between Cartier and Kenora—a little stretch of 800 miles—and who was engineer of construction on the 256 miles between Markstay and Missanabie.

He acquired the railroad-building habit in such aggravated form that, after the road was completed, he went to Brazil, where he pursued his vocation until surveys were begun for the Grand Trunk Pacific. He then returned to get cooled off once more on the latest of the transcontinental lines in the far North. William Brandreth, now a member of the provincial parliament in British Columbia and a prosperous farmer near Vancouver, was another old-timer discovered riding on a limited train across the wilderness which he helped survey for the C. P. R., beginning away back in 1872.

On the Right-of-Way.

Speaking of this newest of transcontinental lines, it isn't like the good old days any more. When they were trying to find out where to lay the rails of the Canadian Pa-

cific, men were willing to go out into the wilderness for twenty dollars a month and live on a diet of "Chicago chicken," which is a euphemism for pickled pork, when they could get it. But, as provisions had to be brought up in canoes and on men's backs, the surveying parties were forced to live a good part of the time on the anticipations of what they would do to a beefsteak, the next time they caught one alone and unprotected.

On the Grand Trunk Pacific the men got from forty to fifty dollars a month and three meals a day, with oatmeal and condensed milk, bacon and beans, desiccated potatoes, pickles, jam, cheese, lime-juice, corned beef, canned vegetables, fruit, and butter.

Think of it! Butter in the woods! Yet, the men kicked because they couldn't have printed menus and clean napkins at every meal.

The way the men in a surveying-party are pampered nowadays is scandalous. They are furnished with mosquito-proof tents in the summer, and tents with stoves in the winter. The chef has a cook-tent and a portable range. In the good old days only the staff reveled in the luxury of a stove, while the men slept in a wigwam. As for the cook (they didn't have chefs then), he fried the bacon and made the coffee over an open fire, when the rain didn't put it out.

They can take luxuries into the wilderness, but they cannot do away with its perils. Twenty-five men were drowned on the Grand Trunk Pacific surveys. Winter, too, has its terrors. An axman sent on an errand failed to return. After a two-days' search, they found him standing up against a tree, his legs frozen stiff and immovable.

He had fallen into a waterhole, getting wet to the waist, and had gotten his matches damp, so that he could not build a fire to dry himself out. Another man froze his legs to the knee, and, finding no surgeon handy, amputated his own toes with a razor and a pair of scissors. From which it would appear that cold-blooded nerve was not an attribute monopolized by the old-timers.

The Mounted Police.

"Billy" McLeod, now manager of a detective agency at Vancouver, helped make history as high private in the rear rank of the detachment of Royal Northwest Mounted Police assigned to duty on the railroad. He began when the end of the track was at Flat Creek, 200 miles west of Winnipeg. It is

pretty well known that the Canadian Pacific was built without any of the disgraceful lawlessness that marked the construction of transcontinental railroads on this side of the border, but it may not be so well known that the mounted police were chiefly responsible for this immunity from trouble.

The mounted police were sent to keep things straight on the road, and they did it by adhering strictly to the one great, fundamental rule on which the force is founded, which is to do things first and consider the fine points of the action afterward, when there is nothing else on hand. If a man hasn't sense enough to know what the right thing to do under any and all circumstances is, he can't get on the force.

War on Fire-Water.

Bad men, and men who would have been bad if they had had the courage, flocked to the Canadian Pacific, just as they did to the American roads: the only difference being that they didn't stay on the Canadian road. The mounted police were always on hand whenever strangers arrived in camp; and if said strangers could not give a satisfactory reason for their presence there, they received such a pressing invitation to leave that they never refused.

The most persistent and determined efforts were made to supply the construction-gangs with whisky. The laws of Manitoba did not prohibit the sale of liquor; but when the Canadian Pacific Railway Company was confronted with the alternative of burdening itself with a drunken construction-force or preventing the men from having all the liquor they wanted, it elected to let them go thirsty. The word was passed to the mounted police to prevent the sale of liquor without too fine splitting of hairs over the law in the case.

And they certainly did it. They boarded all trains; they searched all wagons; and when they found whisky, they poured it out on the thirsty prairie soil. Thousands of gallons of whisky went to stimulate the growth of sunflowers along the railroad. So great was the drought that whisky was quoted at fifty dollars a gallon, with none to be had at any price.

It was not because the whisky-dealers were not ingenious in expedients, for they tried to smuggle in small kegs of the stuff in cases of dry-goods and pianos, in egg-shells, in ox-yokes, and even in bibles. But whisky could not be hidden from the redcoats.

Bootleggers, who, tempted by the hope of enormous profits, ventured into camp with small quantities of whisky concealed on their persons, fared rather badly. They were sure to be caught; and, when they were, they were taken before the commanding officer of the mounted police, who acted as magistrate.

They always got the limit, and, to make sure that nothing that was coming to them

heavy. For reasons of his own, McLeod had left his red coat in camp; so the stranger, setting down the grip with a sigh of relief, mopped the perspiration from his face and accosted the policeman.

"Hallo, Bill! Working down there?"

"Yep. I'm not feeling well, so I've knocked off for the day."

"Say! I got something here that'll



WHEN THEY FOUND WHISKY THEY
POURED IT ON THE THIRSTY
PRAIRIE SOIL.

was overlooked, they were sent to some mounted-police post to serve their sentences. They never tried the game a second time.

Delivering the Goods.

One sweltering August day, near Broadview, McLeod, who had been up at the front watching the track-layers handle steel until the sight of so much hard work made him tired, was returning to camp when he met a stranger staggering along under the weight of a satchel that seemed to be particularly

straighten you out. Wouldn't you like a drink?"

"What ye got?"

"Whisky and brandy. Twenty-five cents a drink."

With these words the stranger opened his grip, which proved to be filled with quart bottles encased in cheap socks to keep them from rattling. On top lay a revolver of the largest size.

"What ye goin' to do with that?" asked McLeod, pointing to the gun.

"I tell you what I'm goin' to do with



"THE FIRST MEDDLIN' REDCOAT THAT LAYS HANDS ON ME IS GOIN' TO GET A DOSE O' THAT."

that. The first meddlin' redcoat that lays hands on me is goin' to get a dose o' that."

"Um-m-m! Say! What'll ye take for your outfit?"

"Four hundred dollars."

"I'll give you three hundred if you'll throw in the gun."

"It's a go."

"Bring it down to camp, and I'll give you the money," said McLeod, picking up the revolver, which he pretended to examine with great interest. Retaining possession of his new pistol, McLeod led the way back to camp, with the stranger puffing in his wake, carrying the heavy grip. It was more than a mile back to camp, there was not a breath of air stirring, and the sun seemed to be trying to drive the mercury out at the top of the thermometer-tube.

McLeod, simulating great anxiety to get his purchase under cover, almost ran all the way, giving the heavily laden stranger no chance to rest. At last the whisky-pedler dropped the grip, and, turning purple and yellow by turns, managed to gasp:

"Wh-wh-why, you—you're taking me to the police station."

"Sure I am. I forgot to tell you that you are under arrest."

For a time the whisky-pedler was speechless. When he found his voice he could only give utterance to incoherent ravings. But when he got right down to it at last, he relieved himself of a torrent of profanity, winding up by exclaiming:

"I don't mind the arrest, but to make me lug this dray-load of liquor two miles on the double-quick in this awful sun—" and then he became incoherent again. He was fined two hundred dollars; his stock was confiscated, of course; and he was run out of camp.

Ten years later, McLeod met the former whisky-pedler, who, in the accents of one whose grief, while mellowed by time, is none the less poignant, again upbraided his late

captor for making him carry that load of whisky to the police station.

Professional gamblers who strayed northward were run out of camp with such enthusiasm that they never ventured into Canada again. A game of poker among the men, however, was overlooked, provided it was kept very quiet, which meant that the stakes must be nominal. When the end of the track had reached Regina, a plan was laid by some of the men who were suspiciously dexterous with cards to inveigle the paymaster into a game of poker and fleece him.

"Pinching" the Paymaster.

McLeod heard of the plot and warned the paymaster. Being a knowing young person, the paymaster volunteered to take care of himself without any assistance from the mounted police. Notwithstanding this offer, McLeod kept his eye on the paymaster.

When he saw him go into a tent that evening in the company of the card-sharps, he waited only long enough to allow time for things to get running smoothly. Then, with a partner, he pushed open the flimsy wooden door of the tent, and fell upon the table so quickly that he had scooped a jack-pot

amounting to four hundred dollars into his pockets before the poker-party realized what was going on.

All hands, including the wise young paymaster, were taken to the station. Colonel Steele, the commandant, was awakened, and, sitting on the edge of his cot in his night-shirt, he tried the case then and there, imposed a fine of fifty dollars on the paymaster, and double that amount on the gamblers. Then he rolled into bed while the police escorted the gamblers out of camp and told them to keep on going.

Breaking Up a Riot.

A riot started by a striking steel gang at Oak Lake was suppressed in the same summary manner. It was in the spring, when work was first begun, and the men, just arrived in camp, had managed to smuggle in enough whisky to start a row.

The nominal cause of the strike, of course, was of no consequence. Sergeant Percy, of the mounted police, was sixty miles away when he was notified of the trouble. With

four men he boarded an engine, and hastened to the camp.

The first thing the five redcoats did on reaching the scene of the riot was to get axes and go through the camp smashing everything containing whisky. When this was done to their satisfaction they arrested a few of the ringleaders in the row. Then the sergeant and three men went about their business, leaving a solitary redcoat to keep the drunken camp in order.

He did it, too; for the magic of a red coat in preserving the peace is something that passeth the understanding of a free-born American citizen. They are a quiet, unpretentious lot of men who never indulge in any gun-play, nor loud talk. But everybody in the Northwest knows they are crack shots when shooting is called for, and that the maxim that is burned into their brains is that when they are sent to do a thing they must do it or never show themselves again.

So the single policeman was enough to quench the smoldering embers of the riot. Next morning the steel gang, sobered and chastened, returned to work.



SITTING ON THE EDGE OF THE COT IN HIS NIGHTSHIRT, HE TRIED THE CASE.

Another volume of the living history of the Canadian Pacific who is still hale and hearty, tells the story of the road's narrowest escape from trouble of a really serious nature. He is Father Lacombe, a gray-haired Catholic priest, who went into the Northwest as a missionary to the Blackfeet Indians before the building of the road had been decided upon.

Averting a Massacre.

The Canadian Pacific, it will be remembered, was built without any trouble from the Indians. Father Lacombe is the reason why there was peace rather than war. Indians north of the boundary line were just as blood-thirsty, just as quarrelsome, and just as treacherous as their kinsmen south of it. But in Canada, Catholic missionaries had gained a wonderful control over them. The Indians never would attack a camp of another tribe if they knew a "black robe" was there. In all the difficulties between the Indians and the government, the railroad and the settlers, the black robes rendered invaluable assistance.

By the time the construction army had reached Medicine Hat, Chief Crowfoot and his tribe of Blackfeet had made up their minds that they did not want a railroad through their reservation. To make sure that it would not be built, fifteen hundred of them, led by Crowfoot, put on their war-paint, sharpened up their tomahawks and prepared to run down to Medicine Hat and massacre the railroad-builders.

Father Lacombe, hearing what was in the wind, hurried as fast as horseflesh could carry him to the construction camp, and begged the men to stop work for a day or two until he could have a chance to pacify the Indians. The request was received with jests and curses, and with the assurance that they did not propose to stop for Indians nor any one else.

The Black Robe's Advice.

Father Lacombe could deal with red savages if not with white. Ignoring the ribaldry of the men whose lives he was trying to save, he bought two hundred pounds of sugar and as many more of tea, tobacco and flour. Hurrying back to the Blackfoot mission he invited the Indians to a council. He distributed the provisions among the chiefs who were to divide them among their families. Father Lacombe knew well how to talk to

Indians, and he spoke their language perfectly. Said he:

"Listen to my words. If one of you can say that, in the fifteen years I have lived among you, I have given you bad advice, let him rise and say so fearlessly."

Not an Indian stirred.

"Well, my friends, I have a bit of advice to give you to-day. Let the white people pass on your lands and build their railroad. They will not rob you of your lands. Moreover, these white men obey their chiefs, and it is with the chiefs that the matter must be settled. I have already told these people that you are not pleased with the way in which the work is pushed on. The governor will come here to arrange with you himself.

"He shall listen to your griefs, he shall propose a remedy, and if the compromise does not suit you it will still be time enough to order the railroad-builders off your reservation."

Crowfoot at once took the floor and declared the advice of the chief of prayer was good, and that it should be followed. That ended the trouble, and the railroad-builders worked on unmolested, never realizing how very near they had come to losing their scalps.

President for an Hour.

Meanwhile Father Lacombe had telegraphed the situation to the authorities and, a few days later, Lieutenant Governor Dewdney arrived as promised by the "Chief of Prayer." In exchange for the tract of land taken for the right of way on the border of the reservation, the Indians were given a strip on the northwest border that fully satisfied them.

The Canadian Pacific Railway Company fully appreciated the value of the service the missionary had rendered. In proof of this Father Lacombe was made president of the road, though perhaps that fact may not appear in the archives of the company.

When the first train ran into Calgary, which was already a flourishing village in anticipation of the coming of the road, it was followed closely by the private car of President George Stephen, now Lord Mount Stephen. He was accompanied by three presidents of American railroads, a number of English lords and a German count. Stephen's first act on reaching Calgary was to send Father Lacombe an invitation to take lunch with him in his car. When the good priest appeared he was unanimously elected president of the company, a position which



CROWFOOT DECLARED THE ADVICE OF THE CHIEF OF PRAYER WAS GOOD.

he filled with satisfaction to all and credit to himself until the meal was over.

A few hours' ride beyond the scene of the massacre that did not take place, there is another spot that makes the history of the C. P. R. still more vivid. It was no longer ago than July 2, 1886, that the first through train into British Columbia stopped at Field, a few miles beyond the continental divide, and left a dining-car on the lonely siding to serve as an eating station until a hotel could be built. Another dining-car was spotted at Glacier.

Pioneer Through Trains.

Sam Woods, who had already had the honor of running the first train into Port Arthur, on Lake Superior, was the conductor. He is now station-master at Vancouver, and to all appearances will be able to take charge of more first trains half a century hence. Robert Marpole, then superintendent in the mountains, is now executive assistant at Vancouver.

The dining-cars were spotted at Field and Glacier because it was too difficult to haul them over the stiff grades in the Rocky

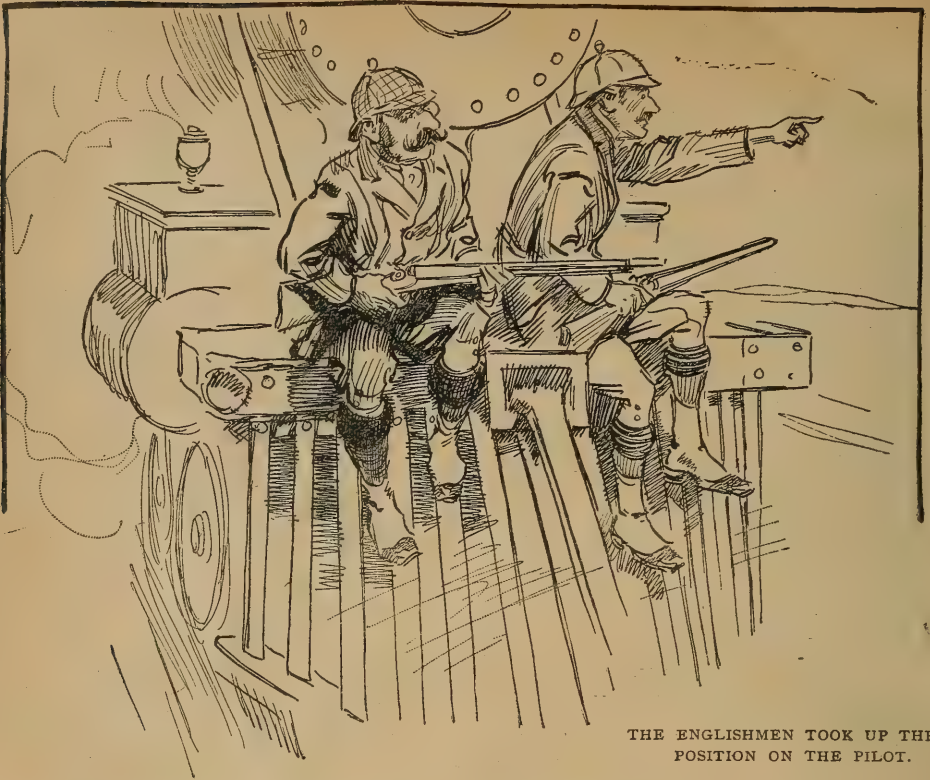
Mountains and the Selkirks. On grades of two and a half to four and a half per cent all kinds of things were liable to happen, and, in fact, generally did happen.

For instance, the snow in the Selkirks has such a disagreeable way of sliding down the mountains in great avalanches, sweeping everything before them, that one of the first things the railroad company had to do after the rails were laid, was to build miles of snow-sheds to protect the tracks.

When the bids were opened the lowest proved to be offered by William Mackenzie and D. D. Mann. Mackenzie was the owner of a little sawmill at Donald, while Mann was a contractor in an equally small way. Neither was overburdened with capital, but the company risked awarding them the contract.

When the snow-sheds were built, Mackenzie and Mann had more money than they had before. Besides, they worked together so well that they have kept it up ever since. They are still making history at the head of the Canadian Northern Railroad, which is spreading through Canada like measles in a boarding-school.

The second train that left the Pacific



THE ENGLISHMEN TOOK UP THEIR POSITION ON THE PILOT.

coast for the East was burned with the exception of the sleeper at Six-Mile Creek on the eastern slope of the Selkirks. A bush fire had set some wood piles alongside the track ablaze. When the train tried to run past the burning wood-piles the rails spread and threw engine and train into the ditch. The sleeper alone was not derailed, so crew and passengers got out and pushed it back out of harm's way.

Conductor Babbitt's Wet Ride.

For a fire that was rather tame. On Monday, May 28, 1888, they did a little better. On that day No. 1 was flagged at snowshed No. 7, because shed No. 13, near Rogers Pass, just below the summit of the Selkirks, was on fire. A work-train crew in charge of Conductor Babbitt was above shed 13 fighting the fire. They had a flat-car on which were a couple of wooden tanks from which they were nimbly throwing buckets of water on the fire.

About the time the shed, which was of dry pine, was in a fine blaze the coupling broke, leaving that tank-car free to start down the two and a half per cent grade, which it lost no time in doing. All hands

but Conductor Babbitt jumped from the car without waiting for formalities as it started to run into the burning shed. Those who had no time to jump just fell off.

Conductor Babbitt stuck to the flying car, and running for the brake threw his soul into an effort to stop the car. If anybody can figure out why Conductor Babbitt wanted to stop the car right in the middle of a blazing snow-shed, they are welcome to the information.

Providentially for him the brake, like all other flat-car brakes since the beginning of time, was out of order, and would not hold an ounce.

A Watery Crash.

The car shot through the shed, gaining speed at every turn of the wheels, so swiftly that Conductor Babbitt came out of the oven very much underdone. In fact, he was only scorched a little. Down the mountain roared the car, with tidal waves sloshing out of the tanks and engulfing him every time they struck a curve, and that part of the road consists exclusively of curves. At every inundation Babbitt would splutter and give the brake-wheel another twist.

He probably would be winding up that impotent brake-wheel yet, if No. 1 had not been standing on the main-line at shed 7. When he saw No. 1 Babbitt concluded he had been heroic enough for one day, so he dropped off.

When the passengers crawled out from under the seats where they had taken refuge without any effort on their own part, and went up ahead to investigate, they found a heap of splinters scattered around the engine which a very wet gentleman said was all that was left of a tank-car on which he had been making a tour of the Selkirks.

The engine had lost pilot, headlight, smoke-stack, sand-box, bell, and other things too numerous to mention, but Engineer Garvin, after they had remembered to dig him out of the débris, cobbled her up, and using a water barrel for a smoke-stack, she contrived to limp down hill to Donald.

But the favorite classic anecdote of the C. P. R., which after all these years is still the *pièce de résistance* wherever old-timers are in gabfest assembled, treats of two English sportsmen, who made the trip east from Vancouver away back in early days.

Of course they had heard of the abundance of big game in the mountains; so when Conductor McCutcheon casually mentioned that the train would pass a bare patch near the base of Ross Peak, they got mixed on orthography. Their ideas of a bear patch apparently was a natural corral filled with grizzlies at which they could take pot shots

from the train. This shows that we should not too rashly jump at conclusions.

With a great show of reluctance Engineer Baldy Brown gave permission for the sportsmen to ride on the pilot until they passed the bare patch. Attired in strictly correct hunting costume of the period, including double-ended caps, the Englishmen took up their position on the pilot with their elephant guns at full cock lying across their knees and their eyes fairly popping out of their heads as they scanned each foot of ground for the bear patch, or, rather, the bare patch.

Just before they reached this interesting spot the train entered a tunnel, which in those days leaked abominably at a place near the center. When the pilot was directly beneath the worst of the downpour, the engine came to a standstill.

As they were in inky darkness the sportsmen had to sit there for twenty minutes, with miniature Niagaras running down the backs of their necks, listening to Baldy Brown abusing the fireman for letting the steam run down so low.

Not until they were well on their way to London did they recall that they could hear Baldy Brown's vituperation only half the time, because the roaring of the safety valve drowned his voice the other half of the time.

Those who venture to doubt this story are shown the identical bare patch that Conductor McCutcheon mentioned to the English sportsmen and the tunnel in which Baldy Brown's engine died that day.

PRESERVING RAILROAD TIES.

Growth of the Practise of Treating Timber with a View to Prolonging its Life in Road-Beds.

THE rapid progress of wood preservation in the United States during recent years is disclosed in the rapidly increasing percentages of treated ties in the total annual purchases. In 1908, 23,776,060 ties were reported by the steam and electric roads as having been treated by them or purchased already treated, which was 21.1 per cent of all of the ties purchased in that year. The corresponding percentages in 1907 and in 1906 were 12.9 and 11.5, respectively.

Twelve large railroad companies are now running treating plants of their own, and a number of roads which do not maintain such plants either buy treated ties or have their ties treated after purchase.

Altogether, there were in operation in the United

States in the year 1908 about seventy wood-preserving plants.

In 1908 the steam roads treated 12,590,643 ties and purchased 10,565,925 treated ties, the total for these roads being 23,156,568 treated ties, or 21.8 per cent of the total number of ties purchased by them, and 97.4 per cent of the treated ties reported for that year. The use of treated ties is less general among the electric than among the steam roads. The electric roads treated after purchase 212,356 ties, and purchased in treated form 407,136 ties, making a total of 619,492 treated ties, or 9.6 per cent of the total number purchased by them.—*From Bulletin No. 109 on Forest Products of the United States for 1908, issued by the Department of Commerce and Labor.*

THE GOAT DEGREE.

BY AUGUSTUS WITTFELD.

Carlock Bjones Follows a False Clue, and Finds That He Has Been Initiated into an Ancient Order.



ENTERED Carlock's apartments and found him swinging in a hammock. He gave me a quick glance and heaved a deep sigh.

"Why so melancholy?" I inquired.

"My dear Watchem," he answered, "I had hopes that your afternoon would be at my disposal, but, of course, since you are going to the ball-game with Emmons, I cannot look for you to assist me in the mysterious case of O. B. C. Osofat."

"Who told you I am going to the ball-game?" I asked.

"Why, Watchem," he answered, "the truth is self-evident. You are wearing your somber garments on a week-day. You can have put them on only for the purpose of lending color to the yarn you told your chief that your grandmother is to be buried this afternoon."

"As she has died at least a dozen times to my knowledge, I can deduce but one thing, and that is that the interment will be at the usual place."

"Carlock," I commented, "you are right. But what gets me is that you know I am going with Emmons."

"Easiest thing out," replied Carlock. "Emmons came in and tried to borrow a dollar from me. Said he was going to the ball-game. Ergo, he must be going with you or he wouldn't have to borrow the money."

"Carlock," I said in amazement, "you're a wonder. But tell me, why are you swinging in a hammock?"

"Because I enjoy the suspense," he replied. "Suspense stimulates the mental faculties, and, besides, a hammock affords free sway to the imagination."

"Have you discovered any clue to the mysterious disappearance of the case of Fat-Reducio which was consigned to O. B. C.

Osofat, and which was lost while in transit on the Pole-to-Pole Railway?" I asked.

"Before answering your query," replied Carlock, "I wish to refresh your memory on the subject. You remember it was while I was engaged on the famous case of the Gold Coupler that O. B. C. Osofat came to me with the astounding information that a case of Fat-Reducio had disappeared in transit on the Pole-to-Pole Railway."

"Mr. Osofat had ordered the preparation with the idea of reducing his excessive weight, and, in anticipation of the results which had been guaranteed by the manufacturers, he had donated most of his clothing to the home for obese octogenarians, and had ordered a liberal supply of new ones to fit a man weighing a hundred pounds less, or one hundred and seventy-six pounds."

"The preparation had been consigned to him by the manufacturers at Phantasmania, and was receipted for in good order by the Pole-to-Pole at Patrickgonia. Somewhere between that point and this city it disappeared completely. The resources of the road have been exhausted, and as a last resort my marvelous powers have been enlisted in an effort to solve the mystery."

"Mr. Osofat is one of the largest stockholders of the road, and, consequently, the directors are especially anxious to please him, as they realize that heavy stockholders are not to be made light of."

Carlock paused, and, opening his medicine-chest, he handed me a pepsin tablet.

"What is this for?" I asked.

"Take it," he replied. "It will help you to digest the evidence."

I did as he directed, and he continued.

"When I took hold of the case there was absolutely nothing to work on. After infinite pains I discovered that the baggage-car of the train that received the case at

Patrickgonia was in charge of Pud Judson, one of the heavy-weight baggage-smashers of the road. I looked up his antecedents and found that he had lots of first-class records, which he used on his phonograph. He was credited with being as straight as a string, but considerably thicker.

"I also discovered that, after reaching New York on that trip, Pud had disappeared and was missing for four weeks. When he finally reported for duty he had grown considerably thinner. The cause of his falling-off in weight has never been explained."

"Has any one asked him the cause?" I asked.

"Watchem," said Carlock reprovingly, "will you never learn that it is very unethical to ask a suspect to explain anything? The proper course is to secure evidence, or, failing in this, to resort to the expedient of manufacturing evidence to fit the case. When you have succeeded in building up a plausible theory, confront your victim with it, and, by judicious work, win from him a confession."

"As the case now stands," I remarked, "what do you make of it?"

"By logical deduction, I arrive at the conclusion that Pud Judson is responsible for the disappearance of the case of Fat-Reducio, and I propose to fasten the crime on him."

"But, Carlock," I interrupted, "I was not aware that any crime had been committed."

"Is it not a crime to deprive a man of hope?" asked Carlock. "Is it not a crime to rob a man of the anticipated loss of one hundred pounds of surplus flesh, and condemn him to carry it through life?"

I had to admit that it was.

"I have summoned Judson," continued Carlock, "to report here at three-thirty today, and if you want to see something that has baseball fanning the air, I would advise you to remain."

"Well," I replied, "since Emmons failed to get the money, I guess I'll have to take your advice."

Precisely at three-thirty, the indicator on the wall announced that Pud Judson had entered the building, and was even then on his way to Carlock's apartments. In a minute or so the elevator stopped, and then there was a knock at the door. Carlock opened it, admitting a short, emaciated man in a railroad man's uniform.

"You sent for me?" he asked, addressing the great detective.

"I summoned you," said Carlock. "Be good enough to note the distinction. A professional man never sends for any one."

Carlock surveyed Judson critically, having taken a post-graduate course in surveying at a correspondence-school. Suddenly he made the startling accusation:

"Judson, you are short!"

Judson cowed.

"Only a matter of fifty shares or so," he asserted.

"I do not refer to your petty market speculations," said Carlock severely. "I refer to your weight. You have lost about a hundred pounds. Had you lost this weight in a legitimate manner it would not have been necessary for me to summon you, but since you have usurped the loss which should have been another's, it is my duty to secure from you a statement of the facts."

"I do not know what you mean," asserted Judson.

"You know that on your last run there was a case of Fat-Reducio consigned to O. B. C. Osofat of this city. You also know that when you reached here the case had disappeared."

"But why accuse me of knowing what became of it? If the case was lost, I do not see how I am to blame for it," protested Judson.

"When you received that case at Patrickgonia," said Carlock, "you were known as Pud Judson. No one could accuse you of being entitled to that name now. To what can we attribute your loss of flesh, if not to the fact that you have taken something to bring about this result?"

"I tell you I know nothing about it," protested Judson. "When I arrived at New York, on that run, I was a very sick man. My complaint was one that baffled the skill of the physicians, and left me as you see me now."

"Judson," said Carlock, "do you mean to say that you did not eat the case of Fat-Reducio for the purpose of reducing your weight?"

"I tell you I know nothing about it," insisted Judson.

"Judson," said Carlock, "a crime has been committed, and it is necessary that the criminal be found. You were in that car alone with the case of Fat-Reducio. You are known to have often expressed dissatisfaction with your excessive weight.

"During the long run from Patrickgonia to New York you pondered on this fact, and cast envious eyes at the case which was intended to reduce the weight of O. B. C. Osofat. You envied him the good fortune which made it possible for him to indulge in the luxury of a case of Fat-Reducio.

"In the solitude of your car, you suc-

cumbed to the temptation, and when no eye was on you, you ate up that case. Come, man, you may as well admit it. I know what I am talking about."

"I did not eat it," said Judson. "I was not in the car alone. There was a goat on board. It was consigned to a cattle-show in Kentucky. I tell you I know nothing about it."

"Watchem," said Carlock, turning to me, "this is the toughest case I've ever tackled. I've got to get an admission out of him at any cost. The directors have ordered me to make a report as quickly as possible."

He turned, and, opening his safe, he took a handful of gold-pieces from his cash-box. Placing the gold on the table, he addressed Judson:

"Did you ever see this before?"

"No," replied Judson.

"It is yours," insinuated Carlock.

"No, no," moaned Judson. "I wish it was."

"It is yours," repeated Carlock. "Come, now, like a good fellow, admit that you ate the Fat-Reducio."

"I do not understand," wailed Judson. "But if you say the money is mine, perhaps I am mistaken. Perhaps I did eat the Fat-Reducio."

"The money is yours," Carlock assured him. "Come, now, admit that you ate the case of Fat-Reducio."

"Mine—all mine!" exclaimed Judson joyfully. "Yes, I think I did eat it."

He picked up the gold-pieces and let them flow from one hand to the other. Then he put them into his pocket.

"You did it," persisted Carlock. "You know you did it."

"Yes; I did it," said Judson wearily.

"Whew!" exclaimed Carlock. "That was a tough job. Twenty minutes, by the clock. Did you phonograph it, Watchem?"

"Yes," I replied; "it is all on record."

Carlock dismissed Judson, and proceeded to transcribe a full report of the confession. He was a lightning operator on the typewriter, and I watched the sparks flying from the machine as he wrote.

"Are you not afraid of setting fire to the paper?" I asked.

"No danger," he replied. "I use asbestos safety-paper."

As he finished his labors, the postman entered and handed him a large, legal-looking letter.

Carlock passed it to me and asked me to read it to him.

I broke the seal and opened it. Clearing my throat, I read:

HOOFF, HORN & HIDE,
GOAT BREEDERS,
VENEZUELA, S. A.

MR. CARLOCK BJONES, NEW YORK, U. S. A.:

DEAR MR. BJONES—We are addressing you as the head of the detective staff of the Pole-to-Pole Railway, and beg to report to you that some time since, we shipped one of our prize fat goats over your road to the Kentucky Agricultural Fair. The goat was a beautiful specimen, weighing two hundred and twenty pounds.

Shortly after its delivery to the Agricultural show people, it commenced to lose weight, and in the short space of one week it lost the amazing sum of one hundred pounds. It is needless to note that the goat was unfit for show purposes, and we were compelled to withdraw it.

We determined to investigate the cause of this loss in weight, and our Mr. Arsenic Loo Ping was assigned to the job. With the greatest ease he located the man who had charge of the baggage-car in which the goat had made the trip to Kentucky.

He found him in New York suffering from a mysterious malady, and, disguising himself as a trained nurse, he gained admission into the sick-room. He was rewarded by learning from the delirious ravings of Pud Judson that a case of Fat-Reducio in the car had been entirely consumed by our prize fat goat.

We propose to enter suit against the Pole-to-Pole Railway for damages sustained by us through your carelessness in transporting our goat.

Mr. Arsenic Loo Ping sends you his greetings, and assures you that you will have to get up early to beat him.

Very sincerely,
HOOFF, HORN & HIDE.

"Carlock," I commented, "it looks to me as though Pud Judson has the best of you. There seem to be two goats in this case."

"No," replied Carlock bitterly. "There is only one. I'm it."

A broken side-rod has more liberty than sense. Restraint is the secret of usefulness.—Cautions of the M. M.



Observations of a Country Station-Agent.

BY J. E. SMITH.

No. 28.—The Railroad Detective, as Represented by Pat Flynn, who Unearthed a Hideous Crime in a Couple of Trunks From Chicago.



HE wise and observing, whom we have with us always, tell us that if one would live a hundred years, he must have a fad of some kind outside the routine of his daily occupation.

Pat Flynn, who aspired to a hundred years, decided, as an incidental feature of his existence—and supplementary to his job in the livery-stable and off-bearing in the saw-mill—that he would be a detective.

Pat did not want to be a common country constable, handling summonses and serving notices, and trying to stop city automobiles that streaked through Pippenville at a hundred Barney Oldfields an hour.

He wanted tragic enigmas to go deep into, unravel, and apprehend. He wanted to "Hist!" and "Aha!"

When the railroad found Pat, he was night-watchman, or, to put it with more dignity, merchant police in the town of Pippenville at a salary of seven dollars a week, paid by the voluntary subscription of the bank, the hardware merchant, the general store, the lumber-dealer, and others.

His duties were to go up and down the main street in the grave-yawning hours, with an occasional sly sortie in the next alley back, and see that neither vandal nor buccaneer disturbed the peace or property of the village.

Series began in the July, 1907, Railroad Man's Magazine. Single copies, 10 cents.

For the police surveillance, Pat fully equipped himself by sending five dollars to a detective bureau at Cincinnati, Ohio, and received, by return mail, a pewter badge and credential papers, with flamboyant seal, notifying all concerned that the "aforesaid Patrick Flynn was appointed, duly qualified, and fully authorized to detect anything, anywhere, whatsoever, or whomsoever."

Thereupon he detected a new job, paying forty dollars per month — baggage-master at the depot.

Pat made out his application for the place in a stout, round hand, and indicated a sturdy ancestry back to Ballyhooly, Cork County, Ireland.

Now, being station baggage-master at a way station is not altogether what one would term a "flossy" job.

All the 250-pound sample trunks weigh 265 pounds, and every month your "anxious-to-please" Uncle Samuel adds another mail-sack. Besides, there are records to keep and janitor work to do.

The forty dollars allured Pat, but his heart was not in the work.

His natural bent was for police duty. Had he not already paid his five dollars and qualified as a detective?

Again, "Hist!" and "Aha!"

But Pippenville was no field for Sherlocking. There were not people enough, and there was no crime. One cannot run down and apprehend when there is nothing but the idle persiflage of old women's tongues.

Pat went to the railroad to broaden his opportunities.

Railroads need the keen, penetrating vision of the trained detective. There are mystery cases on the railroad every day, and Pat saw his opportunity.

When the company learned he was a detective, with papers indicating it, substantiating it, and notifying all concerned that he had the authority and cooperation of the National Detective Association of Porkopolis, to run down whatever was dark and dank, he would not long remain in Pippenville as baggage-master. They would call for him for secret-service duty.

That was why Pat went after the job as station baggage-master.

The branch line from the prairie connects with the trunk line for Chicago at Pippenville. A great deal of baggage and mail is transferred between the two.

Pat adjusted to his duties quickly enough. Then he began snooping about for crime, double-dealing, and mystery.

It came quickly enough.

One day Pat unloaded two truck-loads of baggage off the branch. On one of the trucks were four shoe-trunks, all alike.

Pat checked his baggage with the train-baggage-man's way-bill. Every check number corresponded, and the pieces tallied. He signed up for all of it, mailed his receipt for it, and loaded up the greater part of the baggage on the Chicago train.

The shoe-trunks, with some other pieces, were checked to Pippenville. These he allowed to remain on the truck at the west end of the depot.

Within an hour the drayman came after the shoe-cases, and gave Pat four duplicates.

When Pat went out to deliver them he found but two trunks. But a strap-check hung on each end of each trunk to match the four duplicates. He found four checks dangling on two pieces of baggage.

Pat had a hazy recollection of there being four of them when he unloaded them, and he was certain he did not load two of them on the Chicago train. Nevertheless, he arrived at the swift conclusion that there had been but two in the first place. Detectives think quickly. He removed the four checks, and delivered the two trunks to the drayman.

This brought the shoe-man to the depot in a hurry.

"I'm short two of my trunks, brother," he insisted. "and I need them right this minute."

"You ain't short nothing," answered Pat. "Them two trunks was checked twice, and that's four. Four checks and only two trunks. See?"

"Ain't short anything!" yelled the shoe-man. "Don't I know how many trunks I carry? Didn't I check four at Holton? Didn't I see the agent load 'em? Didn't I see 'em unloaded on your truck? Didn't I count 'em, 'One, two, three, four,' before I went up-town?"

"Now, you've delivered two of them to some one else, or you have loaded them out for Chicago. Get busy, brother; get busy. I want 'em. I want 'em bad! I want 'em this minute."

"You ain't got but two trunks," persisted Pat doggedly. Detectives must be firm as well as nimble-witted. "But they's checked twice. A check on each end. Four checks on two trunks. See?"

"Have you delivered any trunks to any one else?"

"No, sir."

"Then you put them on the train for Chicago!"

"I did not!" responded Pat firmly. "I did not load any shoe-trunks on the train for Chicago. You had them trunks checked twice. That's four. One check on each end. That's four. Two trunks—four checks! Ain't that plain enough?"

The shoe-man made threatening gestures under Pat's nose.

"No use to talk to you!" he howled.

ends—see? Then you come here and claim four trunks. It's a slick scheme to beat the company. You're a swindler! But Pat Flynn—"

Pat did not get any further. He was about to say that Pat Flynn had solved the mystery and exposed the plot, but the Fourth of July came so suddenly, and they touched off the fireworks all at once, and the pin-wheel went buzzing around at such a rate, that Pat did not complete his deductions. When he



THEY BOUND HIM SECURELY AND LED HIM AWAY.

"You're a muckle-head. You don't know anything. I'll go after the officials by telegraph. I'll get them, and they'll get you!"

This line of talk ruffled Pat, and brought out a hot retort. When a man has ancestral tracing to Ballyhooly, Cork County, Ireland, and detective credentials besides, he's bound to come back.

"Look here!" said Pat. "Don't make motions around me! You don't know who you're talking to. Look here!"

Pat displayed a glimpse of the pewter badge.

"See this paper! Membership, National Detective Association! I see through this case. You got 'em checked twice—on both

came to, the brutal shoe-man had gone up-town.

Pat had taken the count.

The controversy and investigation raged with vigor for many days.

Pat was firm and loud in his theory of four checks and two trunks, and he backed it by the signed credentials of the National Detective Association, and by the weight of his pewter badge.

The mystery was not solved. The shoe-man made good his claim. The company could not find the trunks, and finally paid for them.

Pat Flynn expostulated and protested, but was overruled and censured. He had to

stand aside, mute and helpless, while the company "came across" with the where-withal.

Pretty tough, isn't it, when one has full detective power, and has solved the mystery, and then have all concerned coolly turn down the expert deciphering?

which he had just unloaded from the Chicago train and trucked into the baggage-room.

Then he opened the *Daily Howl*, and scanned the three-inch head-lines with eager interest. He gave a hasty glance at the political doings, none at all at the editorial



THIS DELICATE JOB WAS PERFORMED
WITH ALL THE GENTILITY CON-
SISTENT WITH SAFETY.

Pat was somewhat humiliated and discouraged, but it was not long before opportunity again gently tapped at the baggage-room door, and Pat promptly answered the call.

This time it was big game—same as rhinos in Africa.

A desperate criminal had successfully eluded the police of Chicago.

Pat lit his pipe one day, and sat down on a brass-trimmed, double-strapped trunk,

conjecture, but landed without delay or further ado upon the sporting page.

Exhausting that mine, he returned to the particulars of a revolting crime that was baffling the police of Chicago.

A beautiful young woman had mysteriously disappeared, and the theory was that she had been murdered, dismembered, and the remains concealed in a trunk and carted away in the night.

"Baldy" Brewer was suspected and wanted by the police.

The trunk was described as brown, brass-trimmed, and double-strapped.

Pat jumped three feet straight up and landed in the middle of the baggage-room, while gooseflesh sensations played up and down his spine.

The paper fell from his hand. He was sitting on it—the brass-trimmed, double-strapped, brown trunk, just from Chicago.

There it was, no doubt about it!

Pat's system was surcharged with suspicion. He went outside and leaned heavily

against the depot, fanned himself with his cap, and gathered his thoughts.

"There's a reward for 'Baldy' Brewer, all right," he mused. "Here's where Pat Flynn gets his picture in the papers, and a wad of money too, and makes his reputation."

In another moment a train came in on the branch line, and Pat unloaded another trunk. He trucked it into the baggage-room and dumped it beside the other. Then he stared in astonishment. They were exact duplicates. Each brass-trimmed, double-strapped, and brown!

"That's only a happen-so," Pat soliloquized. "It has no bearing on the case."

Again he read the particulars in the Chicago papers, and corroborated every detail of the description of the trunk.

The hackmen and passengers departed. No one claimed the baggage. Pat was alone.

He turned the trunks over, but there were no telltale marks. Then he speculated on the crime.

No doubt the trunks would be called for. What would he do? What assurance had he that one of them was "Baldy" Brewer's and contained a corpse? None at all. It might be, however. There was a possibility.

Pat reached behind the counter and brought forth a hatchet.

There was a reward, of course—a big reward for information leading to the capture of "Baldy" Brewer.

It was Pat's duty as a detective to investigate, to prowl and pry and prod wherever there was suspicion.

Would faint-hearted indifference lead him to let this opportunity slip from his grasp?

Pat brandished the hatchet in answer, and locked the door to prevent interruption. Then he forced the lock and hurriedly unbuckled the straps.

He raised the lid cautiously, gave a quick peep, and dropped it with the suddenness of an electric shock.

He staggered to the door, flung it open, and again leaned against the baggage-room, pale and excited.

He had caught the glimpse of the top of a woman's head—a scalp covered with fine, wavy brown hair!

His heart beat hard and fast. He struggled for breath. Not for some minutes did he venture inside to restrap the trunk and tap the lock to its proper place.

Then he straightened up with a start to the discovery that he had opened the wrong

trunk—the one that had come in on the branch line, instead of the one from Chicago.

The discovery confused him, and led him to the wildest speculations:

Was there a corpse in each trunk? Had "Baldy" Brewer committed a double crime?

Pat was emboldened to further investigation. He looked into the other trunk, and forthwith slammed the lid down in great haste and hurriedly buckled the straps.

The glance revealed the calf of a leg, flesh-tinted and well-rounded.

He rushed to the telegraph-office and sent this message:

CHIEF OF POLICE, CHICAGO:

What reward for the capture of "Baldy" Brewer and for recovery of body of his victim?

PATRICK FLYNN.

In due time this answer came back:

PATRICK FLYNN:

Two hundred dollars for information leading to "Baldy" Brewer's arrest.

CHIEF OF POLICE.

Pat sought the town marshal.

"I reckon," said Pat diplomatically, "if you was called on to help me arrest a professional criminal, you'd show the white feather."

"Would I?" retorted the marshal with scorn. "I'd like to have the chanct."

"You'll get it, all right," said Pat eagerly. "This very afternoon, down at the depot, an' he's a bad actor. You'll duck, though; I'll bet you ten dollars on that. You ain't got the nerve."

In rebuttal to this insinuating taunt, the marshal threw out his chest and displayed the butt of a bulldog revolver. All of which indicated that he was the man for desperate undertakings.

"What is it, Pat?" he asked with cautious whisper.

Pat drew him aside.

"A store was robbed at Salem last night, and the plunder is at the depot in two trunks," said Pat with easy invention. "When the thief calls for 'em, you nab him—see? Don't let him run any bluff on you, and don't give him any chanct to get the drop on you. He's bad—do you mind? I'll file a affidavit against him. All you got to do is to hold him till they come after him. They's ten dollars in it for you."

"I'd better get Constable Cherry, hadn't

"I?" asked the marshal in a tone of wise precaution.

"Three of us ought to handle him, all right," returned Pat.

The officer made off in gum-booted wariness to marshal his aid, and Pat returned to the station, congratulating himself that the secret was safe, and the others engaged in the legal undertaking of apprehending "Baldy" Brewer were ignorant of the real crime and the character of the criminal.

When the formidable battalion of police, in jerkies, homespun, and one lone tin star, was arrayed in military attention in the baggage-room, awaiting with some palpitation the arrival of "Baldy" Brewer, Pat addressed it:

"Whin you nab 'im, hold right on to 'im. Don't pay any attention to w'at he says. These trunks ain't to be opened till the officers comes. No matter w'at he says are in 'em. Ain't any guesswork what's in 'em. I know! See?"

After a breathless hour and a series of apprehensive "Hists!" portending the culmination of the enterprise, the police force, from its various corners of vantage, heard the approach of Pat's footsteps and the ring of his voice:

"Come right along in the baggage-room with me. Your trunk's inside. We want to get the right one, you know. Don't want any mistake."

The door opened. Pat stepped aside, and the unsuspecting culprit walked directly into the trap. Or, rather, he used a cane and came with a shambling limp—a sort of squeaky protest from the ankle.

The minions of the law pounced upon him. It was an unexpected onslaught. He got in one random blow with his cane by way of resistance, and landed with a resounding whack on Pat Flynn's pate.

But they bound him securely and led him away, fighting, protesting, and profaning like a demon.

As the lock was broken on the village calaboose, they confined him in a room at the inn under a heavy guard of village constabulary.

Soon a fleet-footed messenger came from Pat Flynn summoning the marshal again to the station in great haste. A female accomplice had appeared upon the scene and was claiming the other trunk.

They took her in custody. This delicate job was performed with all the gentility consistent with safety.

"You are under arrest," blurted the marshal, seizing her by the arm.

"Help!" she shrieked, and fell over in a faint.

She shrieked explosively, for her false teeth fell out, and the awkward official, struggling for his balance, stepped on them.

She came to in the parlor of the inn. She was hysterical and belligerent by turns.

The officer sought to pacify her by assuring her that by evening officers would be there, and if she was not implicated in any way she would be liberated, and that she was only held on suspicion for a short time.

"Where are my teeth?" she shrieked wildly. "You puppy! You imp! You'll thuffer for thith outrage, you contemptible thug—you brute—where are they, I thay?"

"It was an accident, mum. I stepped on 'em. You let 'em fall out."

A heartrending wail went up.

The marshal blinked in confusion and backed out toward the door. He would have flown, but the stern duty of the law bade him remain. The woman pounced upon him in a paroxysm of rage, and slapped his face with a ringing smack. Then she sank into a chair and wailed hysterically.

The burden of her lamentation was her teeth. Twelve pearly teeth—the ivory ensemble that artistically robbed the face of ten or fifteen years—were gone, and there was no consolation.

But her emotion had degrees, and soon she was sobbing more rationally.

In the meantime the marshal, with the instincts of a sleuth, had secreted a sharp-eared constable behind a piece of furniture. The alleged "Baldy" Brewer was brought down into the parlor, and the two arrested partners in crime were left alone, with numerous guards and sentries at every possible exit on the outside.

The secreted deputy listened with open mouth, inhaling vast quantities of subterranean lint and almost rupturing his tympanum in the effort to catch incriminating confidences passing between the pair.

For a time no words were spoken. Presently the man asked:

"Are you the landlady?"

"Thir?"

"Are you the landlady?"

"No, thir!"

"Don't you belong here?"

"No, thir. They have arrehthed me and brought me here. Oh, dear! I don't know why. It'th such a dithgrace!"

"The deuce they have! They've pinched me, too. I h'ain't got any idea why. Where did they get you?"

"At the depot, thir. I wath calling for my trunk, and they arrehthed me and brought me here, and they're going to hold me here, till thombody comes. I don't know who."

"That's what that hickory-shirted chief of police told me. They was goin' to hold me till the sheriff comes from Salem!"

"I'll make thombody thweat for thith," said the woman. "They ruined my teeth!"

"What!" exclaimed the man, "smacked you in the mouth with a mace? Where was your hat-pin, woman?"

"I wath tho overcome by thurprith, thir—the teeth fell out. He thepped on them and they huthled me right out, and didn't give me a chance to exthplain. But I thertainly gave him a piece of my mind a while ago. I thure did!"

This pleasant reminder brightened both a little.

"I hope you did, mum," said the man. "You look like you could tell them a few

things all right. I handed 'em some pretty hot ones myself."

"Theyth not done with me yet, I athure you," she lisped loftily.

"Nor me, either."

Another pause.

"Are you acquainted here, mum?"

"No thir, I don't know a thoul."

"Neither do I. Suppose you were just changin' cars, goin' somewhere?"

"Why, yeth; or really, no. I—I— am to meet a gentleman here thith evening on a matter of great importanth to both of uth."

"That's a funny happen-so. That's just my case exactly. There's a lady comin' in on the branch road this evening, and I'm to meet her on a matter of great importance to both of us. We seem to be in the same boat. An' we're both under arrest. But there's a officer comin', in an hour or so, an' as they h'ain't got anything agin me I expect to be released. That'll give me a little time to rig up before the lady gets here."

"A relative, I thupoth?"

"Well, not exactly," he replied, with a cunning smirk. "But she will be before the day's over. We're to be married," he chuckled slyly. "We've



THE MARSHAL HAD SECRETED A SHARP-EARED CONSTABLE BEHIND A PIECE OF FURNITURE.

J. NORMAN LYND.

never seen each other, but we've wrote each other for a long spell."

"Indeed! Indeed! How romantic! Tell me about her—pleath do!"

"She's rich and she's beautiful, too. Somehow, I just naturally picked her out when I read her ad in the *Matrimonial Bulletin*. I ain't got nothin' agin a woman just cause she's got money. But every man likes 'em purty. An' a purty woman with money ain't to be run acrost every day.

"She writes a mighty good letter, an' so do I, an' it didn't take us long to find out we was made for each other. I just kind a felt she was my divinity, as they say."

"How do you know the's tho rich?"

"She don't say so right out. But she hints at it purty often. She don't want her property to have anything to do with our affairs. She wants to be loved for herself alone."

"A lady about my age, I prethume."

"Oh, no," he came back briskly. "She's about twenty years younger than you are. She's somewhere between thirty-five and forty."

The woman came upright with a jerk.

"Thir, I don't thank you for toth in-thinuations!" she retorted. Then she put her handkerchief to her eyes and sobbed with ladylike softness. She audibly lamented the loss of her teeth.

After an assuaging silence, the man spoke up brave and conciliatory.

"Teeth do make a difference in any one's appearance, that's a fact. If I was you an' was goin' to meet some one and cared for my appearance, do you know what I'd do?"

"What would you do?" she asked eagerly.

"Just as quick as they let me out, I'd go and see a dentist. Maybe he's got a second-hand set you could use an' that you could rent cheap."

The woman started.

"The idea, thir!" she exclaimed.

The man, seeing the need of propitiating words, went on breezily:

"Of course, we all need some fixin' up to make us just right. Now, take me. You'd think I was about the article. But I don't mind tellin' you I got one leg off. Maybe you noticed my ankle squeak when I step. It's artificial, that's why. I got another that fits better, an' I don't even limp with it, but I only wear it when I dress up."

"Doth the lady know that you have but one—l-l-limb?"

"Sure not. I never told her. That's a personal matter. Only concerns me, you know. Same as bein' bald; an' I'm that, too—maybe you noticed. People can't help them things. I argue they're personal—entirely personal, an' don't concern any one else. Take yourself, for instance. Your hair's purty scant. That's your own lookout. See?"

The woman involuntarily put her hand to the knot of thin hair on the back of her head.

"Have you ever been married before?" she asked.

"I'll tell you true. You seem to be interested. I've been married two times. I got six children, an' the oldest one's thirteen. I argue that's personal, too. Don't concern anybody but me."

"And you never told the lady?"

"It's a personal matter, mum. I didn't mention it, of course not. If she's a good woman, she'll be glad to take care of 'em. If she ain't a good woman, I don't lose anything, do I? I don't ask her about her personal matters. We just took each other, an' that's enough."

"I dare thay the lady will thertainly be thurprithed."

"Maybe she will, and-maybe she won't."

"What if you find she isn't pretty and hasn't any money?"

"I'd think she fooled me purty bad if she wasn't rich."

"But what do you mean by rich? Don't you know, thir, a woman's riches are her affections? That the wealth she brings is in her heart, and that her full love is opulence enough for any man?"

"May be so, mum, but I've been married before, an' I'm past thirty-five, and, for my part, I'll take 'em every time when they have the real samoleons."

The woman settled back in her chair. She emitted a melancholy and despairing sigh, and a long silence fell upon the pair.

The train came in from Chicago. Two detectives arrived and were at once closeted in the dingy baggage-room with Pat Flynn and the town marshal.

Pat unbuckled the trunks with nervous hand. They crowded close to inspect the gruesome contents. Pat turned his head. He felt sickened.

"Ha!" exclaimed one of the lynx-eyed detectives. "Human teeth here on the floor. One incisor, two premolars!"

The marshal was about to explain, but just then the trunk lid was lifted.

With firm hand the detective pulled out

and held up an artificial leg. The other trunk yielded a wig of woman's hair—brown, wavy, and beautiful.

There were many other articles for the make-up and embellishment of the human figure, male and female, and that was the extent of the horrors.

The marshal, bearing the glad tidings of liberty, hastened to the inn.

He found the woman in a half-fainting condition, and muttering something about "the end of love's young dream."

tective, whom the thieves had bamboozled by switching the checks before making away with the loot.

Then came formal complaints and lawsuits from the man with the cork leg and the toothless woman.

Strange terms came to Pat Flynn's ears, such as false imprisonment, assault, shock, humiliations, property damage, alienation of affections, breach of promise, etc.

The badged and credentialed Patrick disappeared.



THEY CROWDED CLOSE TO INSPECT THE GRUESOME CONTENTS.

"You see," explained the man. "It's this way, Mr. Officer. By and by she asks me if I will tell her the name of the lady I was expecting and was talking about. So I up and tells her—Gwendolyn Hortense Wethersby.

"It just seemed to kind o' squelch her. Then it just struck me all of a sudden—by thunder!—that's her! An' say, I want to git out of here on the first train to Chicago. Seven o'clock, ain't it? I'll say for her, she wants to catch the first train out on the branch—an' that's no josh, either."

On the day following, carpenters made some repairs on the high platform west of the baggage-room, and they found two shoe-trunks concealed thereunder.

There they had been secreted and rifled at leisure, under the very nose of P. Flynn, de-

He did not part from the railroad lingeringly and regretfully, but he went like a meteorite.

When he landed he was a hundred miles away, where a brick-yard job claimed him at once.

So, for the last time, "Hist!" and "Aha!"

As for fads—one parting word.

There are only two safe ones for a railroad man. One is the chicken-ranch, the other is the fruit-farm.

These are so far removed, so inaccessible in the future, so entirely impossible and harmless, that they merely stir the fancy and cannot endanger the job.

Never "fad" in the same orbit with the "job."

Danger!

Nerve in the Tower.

BY PETER MULLIGAN.

THE TRUE STORY SERIES. Notwithstanding the interlocking switches and automatic safety devices in every big railway terminal, the man in the tower has many experiences when the lives of scores of passengers and trainmen depend on his capacity for keeping a clear head and carrying out orders without the slightest deviation. In cases of emergency, the train-despatcher sometimes comes to his aid with instructions, but, as shown in the case of Towerman McManus, there is frequently no time to wait for orders, and then only a quick wit and a steady nerve can be depended on to prevent a smash-up.

A mistake of a train-despatcher can often be rectified before it is too late, but where the trains are speeding by at a mile a minute, the men who shift the levers are given no alternative but to keep their eyes open and be ready to do the right thing at the right moment. Very few of the traveling public are aware of the existence of the man in the little tower beside the track. Nevertheless, he is there, behind his bank of bristling levers, shunting the trains back and forth over the web of tracks like so many giant shuttles, playing a part in the safety of modern railroad travel that the layman might do well to study.

TRUE STORY, NUMBER FORTY-EIGHT.

When to Think Is to Act, and a Second's Delay May Cause the Destruction of Thousands of Dollars' Worth of Property and Cost Many Lives.



“TWENTY-THREE. All copy.”

The monotonous, measured clicks of the telegraph instruments that bind a railroad division into one unit, began talking to the tower men scattered along the nine miles of track that stretch through the New York Central's yards in the heart of New York City. All day and all night such orders came to them

over the wires, and in each tower the men began to write as if they were so many automatons.

“Clear track No. 3 for light engine running wild against traffic.”

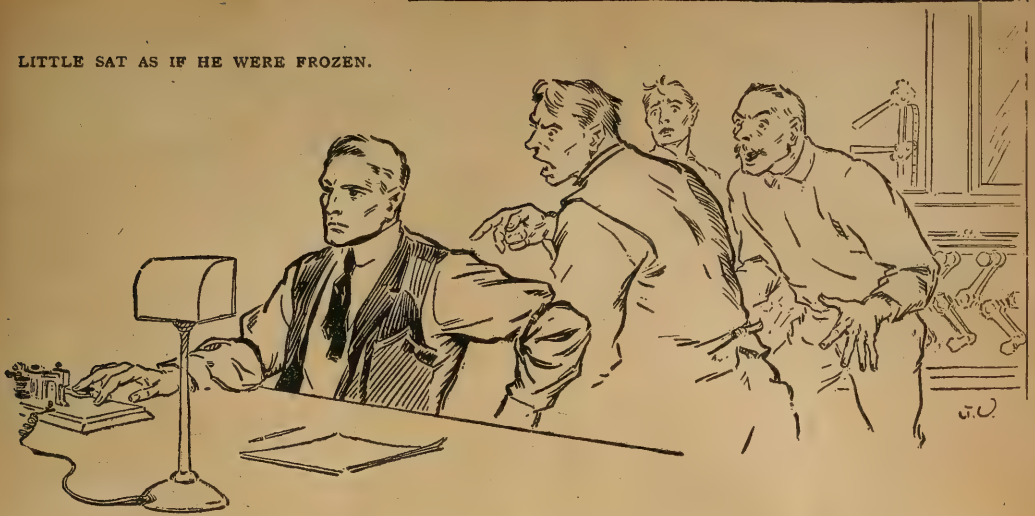
If the wire could have raised its voice it would have shouted. But even so, it could not have sent a more powerful flash of electric impulse to stir the tower men to action.

“Operators at Fiftieth, Fifty-Ninth, Sev-

EDITOR'S NOTE: All the stories published in this TRUE STORY SERIES have been carefully verified by application to officers or employees of the roads or companies concerned who are in a position to be acquainted with the facts. Contributors should give us the names of responsible persons to whom we may apply for such verification, in order that fruitless inquiries may be avoided. This condition does not imply any lack of confidence in the veracity of our contributors, but is imposed merely to give greater weight and authenticity to the stories.

Series began in the October, 1906, Railroad Man's Magazine. Single copies, 10 cents.

LITTLE SAT AS IF HE WERE FROZEN.



enty-Second and Ninety-Sixth Streets, notify workmen."

This was unnecessary. The operators were already on the move, but the despatcher was leaving nothing to chance.

"Set blocks on everything."

Long before the message was finished, the operators were at the levers, throwing switches, setting signals, and tying up traffic in the long tunnel that runs under Park Avenue for almost fifty blocks; for to each tower man had come an understanding of what might happen in that tunnel as the wild engine passed through.

Within were three hundred men laying the third rail for the electric system now in use. Hearing an engine coming from the terminal they would instinctively step on the in-bound track. But that was the very track over which the wild engine was sweeping.

A Mysterious Runaway.

How the engine ever got loose is a mystery that has never been solved. It happened three years ago, but there are men connected with the terminal who still have cold shivers at the thought that it might happen again.

The engine had just brought in train No. 8, due at the Grand Central Station at half an hour after midnight. When unhooked, according to custom, it was backed down to the coal-pit to be made ready for the first run in the morning. It was the sort of thing that is done every hour of the day in all railroad terminals.

But somehow—and here is the mystery—it suddenly developed one hundred and eighty pounds of steam, all it could carry, and started out through the yards.

Lou Smitten, who for twelve years had been a fireman on the Empire State Express and was at this time yard-conductor, saw it start, but although he had only a few steps to take, and took them on the dead run, he missed the runaway.

Warning the Workmen.

His fingers were just able to scratch the tender as he hurled himself forward in a desperate effort to catch the hand-rail, and then he rolled over and over in the cinders. The engine, meanwhile, was picking up speed at every revolution of the wheels, and was now beyond catching.

The whole yard heard it go out roaring. Its steam was up to the limit, and behind it trailed a white feather from the safety-valve.

There was but one thing to do—clear the track. This was no easy thing in a terminal where there is almost a train a minute. Even at that time of night the tracks were loaded with traffic, dead against which the engine was running wild.

In tower No. 1 was William Little, extra night despatcher. The moment he saw the engine, he jumped to the instrument and sent out the message that suddenly filled the tower men all along the line with galvanic action.

As he opened the key, the engine was already passing and going close to fifty miles an hour. It had but four short blocks to run,

when it would be in the tunnel. Within that time, the operator at Fiftieth Street had to tie up traffic, and save the lives of the fifty men who were only a short distance inside.

Seizing his megaphone as he ran, he leaped down the tower stairs and entered the tunnel at the same instant as the engine, which was close beside him. Fortunately, the megaphone threw the sound of his voice forward so that it was plainly heard above the noise of the runaway.

"Jump to other track, quick!" he yelled.

An Impending Catastrophe.

The men were on the track on which they felt secure, but his sharp command made

them obey instinctively. They jumped into what they had every reason to believe was certain death. Then there was a flash, a roar, and the wild engine rushed by.

The tunnel was lined with safety apparatus. Torpedoes were automatically pushed on the track, gongs were set ringing, slap-signals, intended to break the glass in an engineer's cab, pounded futilely on the tender, and, within the engine itself, there was a cab-signal ringing frantically. The noise in the tunnel was deafening.

At Fifty-Ninth, Seventy-Second, and Ninety-Sixth Streets there was a somewhat longer length of time in which to warn the workmen, but, instead of this being an advantage, it caused the operators difficulties which the tower man at Fiftieth Street, by the very suddenness of his command, was able to avoid.

The workmen thought the operators were mistaken, and stopped to argue. But the bedlam of noise coming up the track awakened them to the fact that there was really something unusual going on, and they saw their danger in time to jump out of the way. Of

three hundred men at work on the tracks, not one was hurt.

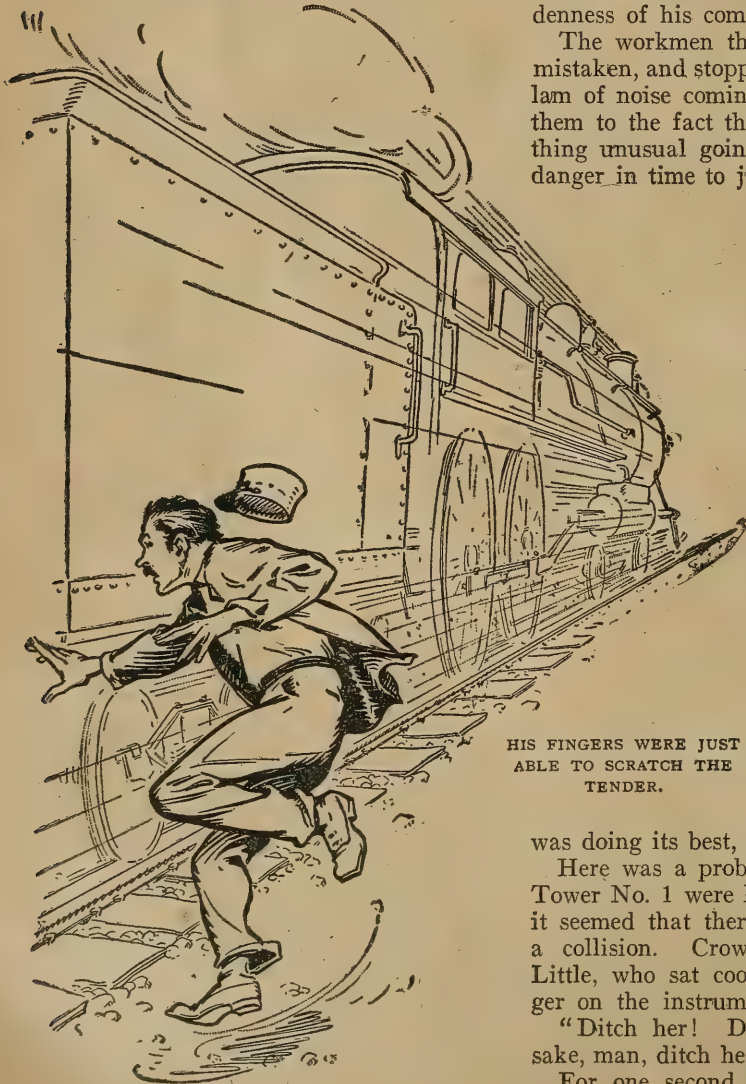
At Ninety-Sixth Street the track leaves the tunnel, and at One Hundred and Sixth—only a few seconds' travel for the speeding engine—it is supported on an elevated structure far above the streets of Harlem. Approaching One Hundred and Sixth Street from the north, on the same track, was the Poughkeepsie local, which had already left One Hundred and Twenty-Fifth Street Station before the engine went wild. The local was gathering speed, and

was doing its best, because it was late.

Here was a problem to which the men in Tower No. 1 were keenly alive, and to them it seemed that there was no way to prevent a collision. Crowding behind Despatcher Little, who sat cool and keen with his finger on the instrument, they cried:

"Ditch her! Ditch her! For Heaven's sake, man, ditch her!"

For one second Little sat as if he were



HIS FINGERS WERE JUST
ABLE TO SCRATCH THE
TENDER.

frozen, but during that second there passed through his head the whole panorama of the situation. If he listened to the clamor of the older men behind him, he felt certain that the ditched engine would jump the wall of the embankment and smash down into the street.

The Devil and the Deep Sea.

That he dared not risk, for he knew not how many people might be in the street below. But the alternative was hardly better. A picture of a head-on collision with the Poughkeepsie local flashed into his mind as the older men kept calling to him frantically: "Ditch her! Ditch her!"

There was one chance left, and he meant to take it. If he failed, it meant everlasting disgrace. Success lay only in providing for other troubles farther up the line, but there would be time enough to think of the other troubles.

Not to follow the unanimous demands of the others took strength of purpose, but Little, although he was only twenty-three years old, did not hesitate.

The situation was, in fact, worse than the others realized. There was almost a minute to get the Poughkeepsie local to One Hundred and Sixth Street, where it would be switched to another track. If this could be done, all well and good; but here a third difficulty blocked his way. A dead train on the other track was coming in on passenger schedule, and if it reached One Hundred and Sixth Street at the same time as the Poughkeepsie local, the cross-over would result in another and hardly less disastrous collision.

But, within the second that all these alternatives shot through his mind, in spite of the cries of "Ditch her! Ditch her!" he saw his way clear.

"Shut up. Mind your own business!" he roared, though afterward he did not know he had opened his mouth. His mind was on the order he was about to give to "Kid" McManus, the tower man at One Hundred and Sixth Street.

One Wreck Averted.

Meanwhile McManus was doing some thinking on his own part. All the alternatives that passed through Little's mind shot in hot waves through his own. He, like all the other operators, had received the original message, and he knew that there was no time to lose. He could see the Poughkeepsie

local so close to him that it hardly seemed safe to throw the switch before it, but he had received orders to clear the track, and it had to be done.

At full speed the local took the cross-over and shook and swayed as if it was going to leave the rails, but to McManus it seemed to be crawling. Down the track he could see the wild engine coming, and made bets with himself as to whether the local or the engine would win. As the last car passed he swung the lever and closed the track before the wild engine. Had it been five seconds earlier, it would have struck the last coach and gone over the embankment into the street.

Then McManus had time to think, but to Little the problem that the wild engine presented was one bristling with difficulties. The other men in Tower No. 1 held their tongues now, principally because they felt certain that he would ditch the engine as it ran into the Mott Haven yard. But here, again, Little knew he dared not take the risk.

There was a tower directly in front of the only feasible place at which to derail it, and, as it stood under an embankment with the tower man almost on a level with the track, the engine would plunge straight through it. To order the tower man to ditch the engine, would have been asking him to kill himself.

Some Quick Lever Work.

Another possibility came to his quick wits, and while the engine, going faster than a mile a minute, went a distance of twenty-four blocks in less than two minutes, he raised the operator at White Plains, on the New York, New Haven and Hartford, which also runs through the Mott Haven yard, to learn what tracks were clear on his division.

The answer came immediately, but to make the proper switches at Mott Haven required the few remaining seconds. Instead of giving the whole order at once to the tower man, as he would have done under ordinary circumstances, Little called for switch after switch to be thrown, and before the last was closed, the engine was already slamming from track to track.

But the rails, as if by magic, jumped to place ahead of it, taking it safely on a zig-zag course through a yard that was full of moving cars and switch-engines, until it struck a long stretch of open track out through the Bronx, along which it was allowed to run until its steam gave out.

Altogether that engine traveled about

twenty miles, making the first nine of them in eleven minutes, which is much faster than the time made on any schedule over the same piece of track.

For that ten minutes' work, Little was made chief despatcher, and, although he is only twenty-six now, he is known as one of the most efficient men connected with the telegraph end of any railroad in this country.

Among telegraphers, his feat is regarded as the quickest piece of work ever done by a despatcher. The telegrapher who told me the story, who was one of the men in the tunnel, said that the name of McManus, however, should not be forgotten, either, for he also showed a quick wit and a steady nerve. If he had waited for Little to tell him to make the cross-over, there would not have been time.

Cases where tower men by independent thought have averted wrecks occur much more frequently than any one knows of, but since disaster is prevented and the trains go on their way unharmed, the facts rarely become public.

Where the Tracks Crossed.

The Greenport express was bowling along the main line of the Long Island Railroad only a short time ago, and was slamming through station after station with all signals set at clear. There was apparently nothing in the road, and nothing was expected to block its progress, for it had the right of way.

After leaving Westbury, as it neared the end of the run, there was no stop short of Jamaica, and the engineer began to pick up speed for the final spurt. He rattled through

Mineola; New Hyde Park went by in a blur; and now, well in his stride, he shot by Floral Park as if there were no such station on the map.

It was only fifteen miles to Long Island City, and the journey would be over in a few minutes, but while no one on the train, from the engineer to the most complacent passenger, had any thought of trouble, a trap was being set that all but turned the train into a shambles.

A local from Hempstead, loaded down with passengers, and late, pulled into Floral Park, and, stopping with its coaches immediately across the main line, began to unload them. The passengers thronged over the track with no knowledge or fear of the Greenport express, and the scene was set for a slaughterhouse. Worst of all, the man whose business it was to prevent the Greenport express from smashing through the local, felt as secure about the matter as any one.

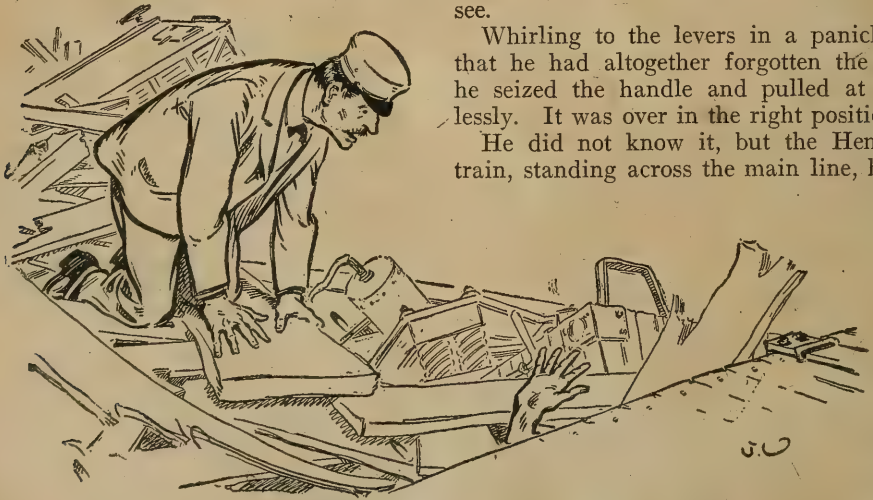
It was a case where the automatic signal was not expected to give warning. That was the affair of Towerman D. A. Sharp, and he, having set the signals against the Greenport express, turned unconcernedly to watch the crowd. His duty was done. He had set the signal, and there was nothing more for him to do but wait to send the semaphore-blades to clear after the Hempstead train had pulled out. He knew the Greenport express was due, and he looked up the track casually.

Signals That Failed.

As he gazed, his eyes suddenly stared in terror and his blood ran cold. There was not a semaphore at danger as far as he could see.

Whirling to the levers in a panicky fear that he had altogether forgotten the signal, he seized the handle and pulled at it uselessly. It was over in the right position.

He did not know it, but the Hempstead train, standing across the main line, had de-



"SAY! ARE YOU ALIVE DOWN THERE?"

veloped some defect in the wiring, and caused a short-circuit that had put out of commission the whole signal system for several blocks.

Under such circumstances, a man without initiative would have been lost. All that he was accustomed to rely on as infallible had absolutely failed him. An earthquake-shock or a bolt out of the sky could not have found him less prepared. In such emergencies the average man fails, but here Sharp showed his metal. The moment he saw that the signals would not work he was down the stairs in a jump, running up the track, waving a flag, and gesticulating wildly with both his arms.

"She's got to stop!" he said.

By this time the express was spinning past semaphore-poles that should have been an absolute bar, and by the time the engineer saw Sharp there was barely enough time for him to shoot on the air and jerk the train to a standstill. It stopped as if it had struck eternity.

Inside, the passengers complained among themselves at the jarring they received, but a few minutes later, when their train continued on its way to New York, no one noticed the young man in the tower who had just prevented a wreck in which a score of people might have been killed.

A Train on His Back.

Among telegraphers these stories circulate, but the world at large knows nothing of them. There is hardly a tower man in this country who has not at some time been called upon to take quick action.

An instance famous within the profession, but never told outside, would have made a

hero of A. A. Leonard, now one of the best-known men in the business, but to his fellow telegraphers, who are the only ones who ever heard it, it was all part of the day's work.



"SHE'S GOT TO STOP!"

When he was a boy, just learning to read Morse, and holding down an operator's job at Barree, on the middle division of the Pennsylvania, he averted a wreck that would have gone down in history had it occurred. Like most railroad stations, the one at Barree was built with a bow-window, so that the operator could look up and down the track, and in this window Leonard was one day sitting, unknowingly awaiting the most thrilling moment in his life.

A fast east-bound freight was pounding past ten feet in front of him, hurrying to reach a siding two hundred yards down, to clear the way for the mail-train, No. 13, which was due in five minutes. Suddenly right before him a car slumped down on the track with a broken axle, that began tearing up the ties, while a flagman who was passing over the top leaped wildly into the air. After that for fifteen seconds there were plenty of things happening.

The car behind the one with the broken axle turned sharply at right angles, reared, and made a bolt directly through the waiting-room, catching Johnny Clemons, the station-agent, in the back and shooting him, surprised but unhurt, through the back door.

The next came quartering, caught the bow-window before Leonard had a chance to move, and cut it away from the building. Before the piling-up had finished there were seventeen freight-cars within four car-lengths of track, and somewhere under the wreck was Leonard.

Cut, bruised, shaken like a rat, and all

but unconscious, Leonard knew what was happening to him, but it seemed as if additional cars would never cease piling up on top. When they stopped, to his great surprise he realized he was still alive, although he had every reason to believe that he ought to be dead.

He tried to think, but his head was humming so that he could hardly collect his thoughts. He also felt as if he had lost a part of his body, but he soon discovered that he was intact, though his arm was wedged upward at an angle that caused him excruciating pain.

In his head was a jumble of something vaguely connected with the flagman he had seen jump. He seemed to be having a nightmare, and could not collect his evasive ideas.

Through his pain, after the prolonged agony of a minute, it came to him—No. 13. The flagman was probably dead. What could he do where he lay? It might take them hours to dig him out.

Above his head his hand felt free, and, in the hope that some one might see it, he wiggled his fingers. To expect his hand to be seen through the wreck of seventeen cars was ridiculous, but it was the only chance he had.

Johnny Clemons had by this time regained the breath that had been knocked out of him, and rushed back inside the station-house to see what had become of Leonard. The first thing he noticed in the pile of wreckage was that feebly waving hand. It was battered and bleeding, and seemed to be giving some ghastly signal.

He began to pull at the wreckage, but making no headway, he called out:

"Say! Are you alive down there?"

Leonard heard as if he had yelled in his ear. There was only a piece of timber and some rubbish between.

"You bet I'm alive," he answered. "But don't mind me. Look out for 13."

Then Clemons was gone, and, after an eternity of suffering, he returned and dug Leonard out. Meanwhile he had stopped the passenger-train and saved a score of lives, but all the passengers ever knew about it was that there had been a wreck down the track, and their train had been delayed several hours.

There are a surprising number of tramp

operators working over the length and breadth of the country, and, although they might be regarded as too easy-going to bear the responsibility that is placed upon them, it is seldom that one of them fails. Also, now and then, one gets an opportunity to play a heroic part and a chance to make good. It is in a time of stress that such men always arise to the emergency.

At Albion, Illinois, on a cold and stormy night last February, a tramp operator took charge of the traffic for the Southern Railway. He had just landed the job, and was particularly glad to be back to the key and form a part again of the never-ending life of the railroad. The good-fellowship of the passing train-crews warmed his heart, and he made up his mind to stick to his job.

He bubbled over with good feeling, and rubbed his hands so much that he did not get down to the rather immediate business of learning the schedule, and before he expected it, an engine swirled out of the storm, trailing behind it a string of brightly lighted coaches filled with passengers. With the snow rail-high deadening the noise, it slipped in upon him unnoticed, but the moment he saw it pulling out he realized that he had an order to hold it on the siding.

He rushed outside, lantern in hand, but only a passenger or two saw the lantern, and to them it meant nothing. This left but one chance—to catch the train. But, at the first step, he slipped, and the lantern went out. When he pulled himself to his feet the last car was already passing. He took another step and slipped again.

The train was now whirling along much faster than he could run, but it was not the first time that he had made a flying leap to the platform. He took a quick step, jumped, and clung on in desperation as his fingers closed about the frozen rail.

Pulling himself up, he attacked the rear door and found that the car was dead. It was no time for ceremony. With his fist he broke the glass, made his way through the front end of the car in the same way, and stopped the train.

When it backed into the siding at the station just in time to get out of the way of a double-header freight, he closed the office, took his hat, and departed for parts unknown.

A bright headlight must be backed by watchful eyes. Brilliance needs intelligence behind it.—Blags of the Big Eagle Eye.

THE ENGINE'S LEAP.

BY MERRITT CRAWFORD.

Was It a Case of Suicide, or Did the Curve Prove Too Much for "Old Kate"?



ANY men on the E. R. and Y. will recall the accident at the curve just beyond the station at Vannette, which gave Engine's Leap its name; yet I doubt if any of them have ever heard the strange version of it, here made public for the first time, or its stranger sequel.

For many reasons it has seemed advisable to conceal the true names of the places and characters that have a part in the story, although, doubtless, certain old-timers will have little difficulty in identifying them. For these, all explanations will be superfluous. But for the benefit of those others who are unfamiliar with the serpentine windings of the E. R. and Y., I will say that Vannette is one of those unimportant, little side-hill stations, clinging to the lower slopes of the Alleghanies, that lie between Eurenia, the head of the Rockland Division, and Meadowville, its southern point. Seven miles below Vannette, in the direction of Meadowville, is the Junction.

On the official map of the E. R. and Y., in the train-despatcher's office at Eurenia, Engine's Leap—the "Leap," it is usually called—is designated simply, "Block Signal No. 87A, Rockland Division," because at the northern extremity of the curve, on the very tip of the crescent, and just out of view from the station-agent's window, there is a semaphore. Opposite the station itself is a siding.

From the outer edge of the "Leap" a green slope stretches abruptly down to the road that skirts the base of the hill, sixty feet below. The slope is seamed and scarred with deep, ugly gashes, now almost obliterated by the rains and snows of a dozen seasons, although beneath the wild blackberry-bushes that riot above the ivy-clad stone

wall at the roadside may still be found fragments of charred and rotting wood or rusted iron, the last evidences of the wreck which gave the curve its name.

Late one mid-August afternoon I was leaving Vannette, after my annual visit to a venerable maiden aunt, and, by some miscalculation, I had reckoned the arrival of the local, which connected at the Junction with the night train for the city, at exactly one hour earlier than it was actually due. When I had obtained this interesting information at the ticket-window, and stepped out on the platform again, I became aware, for the first time, that the rickety old phaeton which had brought me was gone.

Silas, my aunt's man, had evidently felt acquitted of all further obligation to me when he had deposited my trunk upon the baggage-truck in front of the station. Probably he was also of the opinion that, unless he hastened, the tip I had given him would turn into brass or dead leaves, like the magic money of the "Arabian Nights," for the phaeton was the center of a dust-cloud just then rapidly disappearing down the road.

As I stood gazing irresolutely after it, uncertain whether to laugh or be vexed, old Briggs, as he was generally known on the countryside—he had been station-agent, operator, and baggageman at Vannette for twenty years—came out of his office.

"What's the matter?" he inquired, slipping the check on my trunk, as he observed my look of annoyance in the direction of the vanishing Silas. "Did you forget something?"

I assured him that I had not, and that I was only annoyed at the defection of the thirsty Silas, when I might have wished to send him back for something. He grinned sympathetically, and, mechanically, I offered him the courtesies of my cigar-case.

"Thanks," he said, as he selected a weed. "I'll smoke this after I've watered those flowers, if you don't mind? I guess they need a drink more'n I do a smoke just now—maybe as much as Si does," he added dryly.

He pointed toward the grass plot back of the station, where a large bed of red geraniums and sweet alyssum bloomed with a freshness and profusion that spoke well for the care of their owner.

My acquaintance with old Briggs had covered a period of several years, owing to my visits to the aforesaid aunt, but it had seldom gone beyond an exchange of ordinary civilities, and I had never observed him particularly. Now, however, I did so. A man who loves flowers is always worth cultivating; and as old Briggs circled the flower-bed, watering-pot in hand, it was evident he belonged in this category. Now and then he placed it on the grass beside him while he plucked a dead leaf or withered blossom from one of the plants as tenderly and carefully as a mother would treat an ailing child.

"You seem fond of your flowers, Mr. Briggs," I said, by way of opening, "and they are certainly worth your care. I don't know when I've seen any that are lovelier or better kept."

He raised his head with a quick glance of appreciation. It was a large head, rather too large for his spare, little body, and thatched over with thin, sandy hair shot with gray. But it was his eyes that compelled my attention. Just ordinary brown eyes, the casual observer might have said—only there was in them an indefinable something, a strange mingling of sadness and expectancy as he leaned over the flowers, with back of all a haunted, apprehensive look that did not fit well with his years or occupation. This, I observed later, was habitual.

As he looked toward me he emptied his watering-pot.

"Are you fond of flowers?" he asked.

I nodded.

"They're about the only company I have," he said slowly, "since my daughter married and went up to Eurenia to live." Then he added, as if in apology for a weakness: "I'd get pretty lonely sometimes—if it weren't for them."

When he had finished his labors, he came and sat with me in the shade of the big elm that grows by the station, and we talked. At first our conversation was desultory, for the old man was shy, and hesitated about voicing his opinions when he was uncertain

how they were going to be received. But, little by little, he gained confidence, and, as men who live much alone are wont to do when they have a sympathetic listener, he began to talk freely. He had been with the E. R. and Y. since boyhood, and he told me many interesting incidents—little fragments and glimpses of railroad life, observed from his simple view-point, during his forty years' experience.

By degrees our talk wandered from the practical side of railroading to the unreal, the extraordinary, the unaccountable, that happens in every railroad man's experience. Old Briggs recited many interesting reminiscences. Some of them had occurred within his own knowledge, but most had been related to him by others. He did not pretend to vouch for these last, although it was apparent, from the way he watched for their effect on me, that he more than half believed them.

He told of the odd and, at times, almost human freaks and failings of engines; of air-brakes that set without the hand of the engineer upon the lever—Briggs had been an engineer himself until his eyesight had failed him; of engines that refused to steam, even though the gage showed plenty of pressure, and of vicious vampire-engines that had crushed the life out of their masters, and could always be depended on to do the unexpected.

I listened to the old man as one listens to the yarns of some venerable tar, allowing always the proverbial grain of salt; yet, so simple and direct was his speech, so obvious his belief in much he was narrating, that I forbore showing any incredulity. I must confess that, during the telling, I half believed them myself, and even now, in the light of later events, I cannot afford to be too cynical.

From time to time, as he talked, old Briggs rose from where we sat and glanced nervously up the track in the opposite direction from that in which the local was to come. It was evident that, for all his volubility, his mind was on other things. Each time he returned to his seat he resumed the conversation only by the exercise of considerable mental effort. He fidgeted constantly, and seemed uneasy and apprehensive; one might even have said expectant.

"Are you expecting a north-bound train before the local?" I inquired curiously on the occasion of his last look up the track.

"No-o," he answered hesitatingly; "at least—not exactly."

"I beg pardon," I returned; "but I

thought, from the way you kept looking up the track, that you must be expecting something."

He made no reply. Instead, he took out his watch, and made a brief mental calculation, all the while shuffling nervously up and down the platform, as though debating some question in his mind. He pulled a long, spearlike blade of grass up by the roots and chewed it savagely.

"I've got to tell some one," he said almost fiercely at last, and more to himself than to me.

Then, as if his mind had been suddenly made up, he came and stood in front of me.

"Excuse me, Mr. Ordway," he said with a directness that was yet diffidence, "but—er—but do you believe in ghosts?"

The question was so bizarre, so sudden, that it startled me, though I pride myself on being phlegmatic; but I admitted that I had some doubts on the subject. Ghosts, toward the latter end of an ideal August afternoon, seem very far-away possibilities.

"I don't mean ghosts of people," he went on, ignoring my reply, "but ghosts of engines—of engines that have been scrap-iron for years, maybe?"

I still confessed some doubts—at least my face did; for, although I had said nothing, he continued exactly as if I had denied their possibility.

"I didn't believe such things, myself—once," he said, "but I'm an old man now, and maybe an old man can see things that a young one can't. Anyway, you can soon see for yourself. It'll be here in about eighteen minutes." He glanced at his watch again.

I did not know what "it" was, but I was content to wait and see. Ghosts, be they human or otherwise, have few terrors for me when the sun is shining. Yet I could not help looking at old Briggs curiously. He did not observe me, for he was gazing thoughtfully toward the curve beyond the station.

"Yonder's Engine's Leap," he said abruptly, as though I had asked him the question. I felt relieved at the change of subject.

"It was a runaway freight-engine that jumped the track there, wasn't it?" I inquired. "I think I remember hearing about it six or seven years ago, when I first came to Vannette."

He nodded.

"It was a suicide," he said.

"But I thought that only an engine and

two or three empties were smashed—that no one was killed?" I corrected.

"There wasn't," he repeated; "but it was a suicide, all the same."

I checked the question on my lips, for I saw that the old man was not through.

"I hadn't meant to tell anybody about it," he said gravely. "Most of the boys would laugh at me if I did; but, as sure as I stand here, what I'm goin' to tell you is true—as true as the Book."

He paused and, after a moment's hesitation, resumed his seat beside me.

"Did you ever hear of a man—an engineer," he queried, "whose engine was his mistress, who fussed over it and petted it, for all the world as if it was alive?"

I shook my head in negation, for I had never heard anything of the kind. It was an idea entirely novel to me.

"Jack Brodhead was one of that kind," went on old Briggs. "There's engineers like him on most every division—until he met my daughter Nellie. Had the same engine for twelve years—'Old Kate,' he called her, although, like the rest, of course she had a number—and Jack had taken care of her, as fireman and engineer, from the time she was brought from the shop.

"He was forever foolin' and tinkerin' about her, even on his time off, and many a day's pay he blew in buyin' brass fittin's for her that weren't included in the company's supplies. Brass oil-cans, brass lanterns, brass waste-cups, everythin' brass—inside her cab, she wasn't anythin' else, as far as the rules permitted—and all of it polished so you could see your face in it any time.

"Jack had even got a couple of fine brass flag-sockets to put on Old Kate when they had an excursion or political jamboree to take out, though that wasn't often, and a pair of pretty silk flags to go with 'em, too. He certainly did make a lot of that engine, maybe because she was his first, and, in fact, the only engine, he'd ever taken out reg'lar.

"Again and again, Jack and McKegney, the roundhouse boss, almost came to blows about replacing some part of Old Kate that maybe showed only the least bit of wear and tear. But Jack most always won out, for the super liked him, and McKegney knew that if an issue was made he'd get the worst of it. So he had to give in, even though it did go against the grain.

"Even on his day off, he used to go over before the local went out—Jack was reg'lar on the local then, same as he is now—to see

how Old Kate was, though there wasn't an extra but hated to take her out of the yard, for they all agreed that of all the cranky, unreliable engines on the division, she was the worst.

"You don't know how to treat her right," Jack would say to them. "Kate's got feelin's just like any other lady, and she don't like being mauled by a lot of plugs that don't appreciate her." And after a while most of the extras half agreed with him. Old Kate would climb a hill—and there's plenty of them on the Rockland Division—a goat couldn't eat grass off of, if Jack was in the cab; but let any other engineer take her out, and she'd lay down on him at the first chance.

"Naturally, when Jack began payin' attention to Nellie, he couldn't spend so much time fussin' around his engine. He couldn't be at Eurenia and here, too, on his days off; and when a man's got a girl on the brain he ain't apt to waste much time thinkin' about an engine, especially an engine that ought to have been pullin' freight for three or four years.

"Fact is, Old Kate would have been on freight long before she finally was if it hadn't been for the care Jack took of her; but, of course, with other things to think about—a home, and fixin's, and Nellie—he let up a lot. Just about the time Jack and Nellie were goin' to be married the company decided to put one of a new lot of engines in Old Kate's place—she took the local—the train you're waitin' for—from Eurenia to Meadowville, and back.

"Maybe you won't be so partikler about your new engine, Brodhead," said McKegney, when he told Jack of the coming change. "Next one who gets that old crab of yours won't be botherin' us at the roundhouse so much, that's a sure thing."

"Jack laughed as he crawled out from under Old Kate with his oil-can and a fistful of waste in his hand.

"I'm to be married next week, McKegney," he said, "to the best little girl in the world, so I guess I can stand losin' Old Kate; though, if they'd taken her away from me a year or so ago, maybe I'd have cut up some. I used to think there wasn't another engine like her on the E. R. and Y."

"Jack started to climb in under her again—backward, you understand—to finish up his job, when McKegney yelled: 'Jump quick, Jack! She's movin'!'

Jack jumped. He'd felt her 'most as quick as McKegney had seen her drivers

move. Another second, and she'd have crushed the life out of him.

"By Heavens, McKegney," he said, as he swung into the cab, though Old Kate had moved only about three feet, "that's the first time she ever tried that since I've been on her. But how did she get steam in her cylinders? The throttle's over as hard as I can jam it."

"I dunno," growled McKegney; "good thing for you the big, black devil ain't tried it before. Send her up to the roundhouse when you get your new engine, and we'll fix her up for her new boss. Meanwhile, you'd better watch yourself. She's layin' for you."

"The day Jack got his orders to take over his new engine, he seemed relieved. Nellie and me were waitin' here on the platform—she always waited for him—when the local pulled in without Old Kate. She was in the roundhouse, bein' overhauled by McKegney's gang.

"I asked Jack how he liked his new engine.

"Fine," he said. Then he leaned over and whispered, so that Nellie couldn't hear: 'I'm mighty glad to get rid of Old Kate. It may seem foolish, but twice within the last week I believe she's tried to get me. Next time she might have better luck, so I'm glad she's gone where she can't do any harm.'

"I laughed. The idea of a big, strong chap like him havin' such notions struck me funny. But I think differently now. I know things that I didn't know then, and, besides—"

Old Briggs paused, as though overcome by some vivid recollection, and nervously wiped the perspiration from his forehead. "I made no comment, and he went on.

"Then Jack told me what I've just told you, and how, a second time, she'd have got him if she hadn't been over an ash-pit. He didn't say what was the truth—that he was afraid of her. Each time she moved only about three feet—just enough to mash him if he'd been where she thought he was.

"Before I could ask him anything more, the conductor pulled the rope, and, with a wave of his hand to Nellie, Jack and the local were off toward the Junction. I didn't think much about what he had said—not then. Later on I did, though.

"It was Wednesday when he said this, and on Saturday the weddin' was to come off. On Friday, Nellie came up to the station as usual to meet him. The night before Old Kate had grunted through, pullin' a heavy

second-class freight. She was due back with a string of empties from the Junction any time before midnight that day.

"I told Nellie how sour she looked as she went past, wheezing like a horse with the heaves. 'You'd hardly know her,' I said.

"Nellie tossed her head.

"'Old Kate's the only habit Jack had,' she says pertlike, 'and I guess he don't mind losin' her, now that he's goin' to get me. Besides, she'd ought to have been pullin' a freight these three years.'

"I didn't say anything. Girls are girls, and engines are engines, and both are uncertain in some ways. But I couldn't help thinkin', just then, of what Jack had told me. It hadn't struck me before, but I saw it then, that Jack felt toward Old Kate some-ways like a chap does toward a woman he's thrown over. It seemed to me I could even see that cussed jealousy between woman and woman showin' in my own flesh and blood when Nellie spoke of that old has-been of an engine.

"Maybe I'd have said somethin' about it, but I was busy lightin' up. It was gettin' dark; for it was along in the winter time, you know. Just then Nellie looks up at the clock.

"'Jack must be late with 26,' she says anxious-like; 'he'd ought to be here now, and I haven't heard him whistle yet at the south-end crossin'.'

"As she said it we heard him blow, three miles down the grade, and we both went outside. There was a trunk to go down on the local, and I put it on the truck there, and pushed it to the end of the platform, so's it would be opposite the baggage-car that's at the back end of the train.

"Just as I got it down there, Nellie sings out—I taught her the code when she was knee-high to a mouse: 'Oh, dad, they're callin' you from the Junction!'

"I ran back, thinkin' it was some special orders for the local, maybe; but as I heard it, somehow I knew it meant hurry.

"'VS—VS—VS'—that's Vannette—it was clicking, 'VS—VS—VS.'

"Quick as I could get there, I grabbed the transmitter and answered. It was Jim Gaffney, up at the Junction, sending.

"'Hold 26 on siding—quick,' he rapped over the wire; 'engine running—wild—'

"I didn't wait for any more; I jumped for the door, Nellie ahead of me. As we ran out on the platform again, way down the track toward the Junction, faintlike at first, but gettin' louder every minute, we heard the

umpty - tumty - tumty - tump, umpty-tumty-tumty-tump of the runaway. It's down-grade, you know, all the way from the Junction. It came over me in a flash what we were up against.

"Jack and the local must be still a mile away—it's a stiff two per cent rise from south-end crossin' here—and he never could make the sidin' before that wild engine, judgin' from the way it was comin', reached us. There was only one thing to do. If we held the local on the block around the curve, by throwin' the switch from the main track into the sidin', maybe I could ditch the runaway. It was the only chance.

"'Nellie,' I says, as we ran down the track toward the switch together—it's a mid-dlin' long piece down the track there—'run back to the station—quick!—and set the block.' She understood, and I heard her gulp as I stumbled on in the darkness. And all the time that umpty-tumty-tumty-tump, umpty - tumty - tumty - tump, gettin' clearer every second. Maybe 'twas imagination, but it seemed to me that it was right behind me. I could hardly breathe, and my chest seemed as if it was a solid chunk of lead.

"Just before I got to the switch—the track was a glare of ice—I slipped and fell—I could see the glint of the runaway's headlight on the rails as I went down. I must have hit my head, or something, for I was out for a second, I guess, but I rolled over out of the way, and scrambled to my feet again, somehow.

"Then I fell again—I must have been dizzy—with my hand almost on the switch-lever. But I couldn't reach it. Everything happened so quick, it was all mixed up. I heard the local's brakes screech as Jack gave her the air, and her stack and the front of her cab swung round the curve before he could stop her and reverse. She'd overrun her block fifty feet, and how he had the nerve to stick to her and not jump, with that other train comin' smash into her, I don't know. I guess Jack don't, either.

"Then I heard Nellie scream: 'Oh, dad—dad—it's Old Kate! it's Old Kate!' The runaway roared over me—I wasn't two feet from the rail—there was a ripping crash and an explosion, and I didn't know anything more till I came to in the station, with Jack and Nellie hangin' over me, and all the local's passengers tryin' to make out I was a hero."

Old Briggs broke off for a moment, and again looked nervously up the track.

"The experts said," he went on, after a

short interval, "that, striking the curve at such high speed, Old Kate was bound to leave the rails, but I don't agree with 'em. If the local had been on time, she'd either have been in front of the station or on her way to the Junction, and nothing this side of a miracle could have saved her. Perhaps 'twas a miracle, after all. But I think it was a plain case of suicide. It looks to me as if Old Kate killed herself out of disappointment, because she missed the local.

"There are certainly some things in the story that seem to support your theory," I answered; "and at least it is most interesting. But what has it all to do with ghosts, except that it is somewhat uncanny?"

"That's just it," he replied; "if it wasn't for that part, I'd never have thought Old Kate was a suicide—a real suicide. She *walks*—though, maybe, that ain't exactly the word to use about an engine—and that's what made me think first she filled herself. It's eight years almost since she took the 'Leap,' and at first I didn't see her reg'lar, but now she comes through—just as she did that late winter afternoon—always on a Friday—the day she did it."

I started, for the day was Friday.

"At first she fooled me," he went on earnestly, "and I used to set the block and run for the switch. Even now she fools me sometimes. Sometimes I think it's a warning—a warning for me or Jack, though he's never seen her."

I thought of what he had told me, of his run for the switch, and his fall on the icy track. Perhaps he had received some injury not apparent.

"But, Mr. Briggs," I suggested, "surely, after so many years, it can't be a warning; and, after all, are you sure it isn't your fancy? You tell me you are much alone—"

"Listen!" he interrupted, raising his hand. "She's coming—now."

The harried, apprehensive look in his eyes deepened. I listened intently, but I could hear nothing but the drowsy chant of a distant cicada and the plaintive chirping of a family of crickets in the next field. Far away, a locomotive tooted shrilly and long.

"That's the local at the south-end cross-in'," he said significantly; "the other train—gets here just before it."

Still, I could hear nothing. Old Briggs grew visibly more tense. He pressed his lean, gnarled hands to his temples.

"Can't you hear her—yet?" he queried.

"Look! You'll see her clearing the bend."

I looked, but I saw no more of Old Kate

than I had heard. It was different with my companion. That he saw her clearly, vividly, was written in every shaking line of his pallid face and staring eyes. I was turning away in pity, when suddenly, at the far end of the platform, I saw some fragments of paper swirl and eddy through the air exactly as if disturbed by the passage of a train. All along the platform line the dust rose and fell. A puff of wind swept over us. Yet I saw nothing, absolutely nothing, nor did I hear anything but the quick, labored breathing of the old man at my side. He clutched my arm convulsively.

"Thank Heaven," he said fervently, "he's passed!"

Instinctively, I looked toward the "Leap." Around it slowly swung the engine of the "local," and an instant later the train drew up at the station.

Brodhead clambered down from the cab.

"What's the matter, old man?" he asked kindly. "You look as if you'd had a touch of the sun."

"I'm all right, Jack," said old Briggs shakily, and, without saying good-by to me, he turned and went down the platform to see my trunk safely aboard.

When I came back to Vannette, the following year, there was another and younger man who received my trunk on the platform.

"Where's old Briggs?" I asked him.

He did not quite understand.

"Why, he's dead," he answered bluntly.

"Dead?" I echoed. "When? How?"

By this time the new agent had observed that my trunk was checked from the city.

"Oh!" he said shortly. "I was wonderin' how you hadn't heard about it. 'Most every one 'round here has. The old man died the night of the landslide at the 'Leap,' last winter. It was heart disease or apoplexy—they say he hurt his head, eight or nine years ago, an' maybe an artery burst—or something.

"They found him lyin' up by the switch there—though why he'd gone there nobody could make out—but he'd set the block all right, and the train was saved. There was something funny about it, though; for Jack Brodhead, the engineer—he was a son-in-law of the old man's—and his fireman both say that the slide happened after they stopped on the block."

"Then it was the local?" I queried.

"Why, yes," answered my informant with evident annoyance; "but I thought you didn't know anything about it?"


"I don't," I said. And I meant it.

Told in the Roundhouse.

BY WALTER GARDNER SEAVER.

HERE are some stories about a lively gang of railroaders who liked to play tricks at weddings. They were running on lines in the Middle West back in the early eighties, when rules were not so strictly observed as in these days. Be that as it may, you will recognize in these yarns many happenings that do occur in our times, even if it is not good railroad business to run excursion trains to hangings.

An Episode in a Monkey-Cage, a Runaway Train that Played Havoc with a Rube's Wagon, and an Engineer Who Took His Girl in the Cab and Eloped with Her.

ALKING about tricks played at weddings," said Jack, "I believe that one of the funniest as well as one of the most unpleasant jokes, for the victim, was played upon Jake

Brown by the boys of the Missouri Pacific, at Sedalia, Missouri.

"To give a thorough understanding of the matter, I must tell you about Jim Merrifield, and the causes that led up to the perpetration of the trick. Everybody knew Jim Merrifield. He was running freight on the Sedalia and Lexington branch. The Katy was a part of the Missouri Pacific then, and five divisions centered at Sedalia.

"On the Katy, there was the division from Sedalia to Hannibal, and from Sedalia to Parsons; and on the Missouri Pacific, from Sedalia to St. Louis, Sedalia to Kansas City, and Sedalia to Lexington. If there was any devilment going on, Jim Merrifield was sure to have the credit of it, though he may have been at the other end of the division when the affair occurred.

"At that time there was a lively gang of railroaders in Sedalia, and they used to make things hum. If the railroad interests had been taken out of the town, there would not have been much left. The *Sedalia Bazoo*, published by the 'immortal' J. West Goodwin, whose fad was running excursion trains to hangings, was at the height of its pros-

perity, and Ed Burrowes was Goodwin's chief cook and bottle-washer.

"He was managing editor, city editor, and hustler-in-chief. He was known all over the system, and when he felt like going on a whiz he would climb on a train and wind up at Galesburg, Illinois; Denison, Texas, or some other seaport.

"It made no difference whether he had any money, ticket, or pass. He had right-of-way over all Missouri Pacific rails. He was in close touch with the railroaders, and generally one of the leaders in any pranks that they might cut up.

"Merrifield was given a passenger run soon after the occurrence I am telling of, some five or six months later, having a run between Sedalia and Kansas City, and he was running there the last time I saw him; though after I left there and went to another part of the system I heard that Jim had been elected to the board of railroad commissioners of Missouri.

"He had acquired the nickname of 'Tornado Jim,' because one of these festive cyclones, that we used to think belonged exclusively to Kansas, had concluded there was no fun in chasing grasshoppers, and it raised up, crossed the Missouri River, and when it had got a few miles east of Kansas City it swooped down to earth to see what was doing.

"Jim's train was pulling along with some

thirty loads, and was possibly half-way between Sedalia and Lexington when the cyclone struck. Jim was seated in the lookout of the way-car. As it was a warm day, he was leaning out of the window, with his elbow on the deck, when he saw the storm coming.

"Now, Jim had never seen a cyclone, but when he saw that copper-colored cloud sweeping across the landscape, its tail twisting and turning like an elephant's trunk hunting peanuts, he did not need an expert to tell him what it was. So he crawled out through the window, and had just got out on the running-board, when there was something doing.

"The playful zephyr picked up the big mogul and stood it on its nose in a ditch. It scattered the box and flat cars promiscuously over the right-of-way. It lifted the caboose over a barbed-wire fence and gently

deposited it in a corn-field. It picked Jim up bodily, carried him some distance, and dropped him in an osage orange hedge.

"Jim was not hurt, but he was pretty thoroughly disrobed, and his flesh was peppered with thorns from the hedge.

"Now, Blessington had a sister—a bright, winsome girl. Brown had been rather devoted to her, but none of the boys suspected that there was anything doing until, one evening when Jim came off his run, he was met by Burrowes, who told him that a marriage license had been issued to Jake Brown and Grace Blessington, and he presumed they were to be married that evening.

"Whether Jake feared to let the gang know what he was doing, dreading some of their practical jokes, or whether he had concluded that his marriage was none of the gang's business, the fact remains that few of the boys knew what was up.

"Jim had not forgotten the cyclone episode, and he passed the word among the boys that there would be something doing.

"An impromptu meeting was held at the roundhouse, and the best plan of playing a joke on Brown was discussed. All the engine crews and trainmen who were in town were corralled, and, at midnight, there was a mob of them at the roundhouse.

"The Blessington home was not far from the roundhouse, and, at three o'clock, the lights were all out except one in the second-story front room. The roundhouse foreman was in the play, so he sent the caller with a message to the house to call Jake to go east on second 23.

"The gang kept in the background, and as Jake opened the door, clad only in undershirt, trousers, and slippers, and signed the book, the gang made a rush and captured him.

"Near the roundhouse was an old monkey-cage that had been left by some circus. Into this they thrust

Jake, securing the door firmly with a switch-padlock.

"When the whistle blew, at seven o'clock in the morning, a Pacific Express Company's wagon drove up to the roundhouse, and the driver asked the roundhouse foreman to sign the book receipting for one monkey in a cage. The foreman did so without a smile, and the cage, containing the unfortunate Brown, was lifted from the wagon and carried into the roundhouse.



"IT PICKED JIM UP BODILY AND DROPPED HIM IN A HEDGE."

"Here he was spied by all incoming and outgoing crews. They kept him there all day. Every man that came in brought a little bag of peanuts, until there must have been fully a peck in the cage. This, with water, was all Brown had to eat that day.

"Every man went through the usual performance of people before a monkey-cage, passing in peanuts and poking him up with a stick. For a while, the language that Brown used was red-hot, but he soon gave it up, and sat there, sullen and silent, chewing the bitter cud of his anger. The more he would storm, the more joy it was for the gang. All he could do was to sit there and plan how he could get even.

"In the meantime, the wives of the members of the gang were calling at the Blessington home, congratulating the bride and sympathizing with her on the cruel fate that had sent her husband out on an extra run the night of his wedding, but assuring her that it would not have occurred had he let them know that he was to be married, and if the roundhouse foreman had known this he would have sent somebody else out.

"Blessington had to sit there and listen to them, but all he could do was to grit his teeth and swear that he would get even. He did not dare to tell his sister of the trick that had been played.

"Brown was released at night. As he came out of the roundhouse, he was met by Blessington with the remainder of his clothes. Together they planned that Brown should not show up at the house until the following day, about the time that he was to have come in on 24, so that the bride should not know of the trick that had been played.

"Their precautions were of no avail, however. The gang saw to it that the bride should hear the full particulars, and when they finally showed up there was more trouble at the Blessington home.

"Blessington had fallen a victim to the Western fever, and for some time had been contemplating a change to the Far West. He had been promised a train on the Santa Fe extension, in New Mexico, and had only been waiting until his sister married when he intended to resign from the Missouri Pacific and, with his mother, depart for New Mexico.

"Brown decided that he would go with him, so, about a month or six weeks after the wedding, they called for their time, got their clearances, and left for the West.

"The gang was out in force, and gave them a royal send-off. When they finally got away, any feeling of animosity was en-

tirely gone. But the die was cast, and though Brown was out of work and had a new wife to provide for, he was not uneasy. He was a good runner, and he did not doubt that he would soon get an engine.

"The party passed a couple of days in Kansas City, and the railroad boys there saw that they had a good time while in the metropolis of the Kaw. They stopped at Topeka, where Brown saw the master mechanic of the Santa Fe and had no trouble in getting an engine, especially as he was willing and anxious to go to the front. So, when they left Topeka on No. 1, Brown had a job as well as Blessington.

"Now, the construction gangs were being pushed for all that was in them. There was not much money available, for the road was new, and, as a result, the roadbed had to follow the ground pretty closely, and there were heavy grades and sharp curves. Grades could be cut down and the curvature reduced later on. The thing now was to get the road through and trains running.

"Blessington was given a run out of Las Vegas, and Brown was also assigned to the same division, so that it frequently happened Blessington had Brown to pull him. No regular passenger service had yet gone on this division, and passengers were carried in the way-cars. There was considerable local freight to be handled, and most of the tonnage was new material going to the frontier.

"The road crossed the divide at Glorietta Summit. The western slope was pretty steep, with several stiff curves. Some of the engines had air, but, at that time, few freight-cars had air-brakes. It required the best efforts of the three brakemen and the con, with the help of the air on the engine, to hold 'em.

"Brown was pulling thirty loads, bound west, and as he dropped over the summit, he shut her off and put on the air, but the brake was out of order, and the air failed to take hold.

"He then squealed for brakes, but the shacks had set every brake on the train. He saw that he could not hold 'em, and, as the train dropped over the hill, the momentum increased so rapidly that the engine was soon rocking like a ship at sea.

"A switch-cable and hook, carried on the pilot-beam, was thrown into the air, and caught the hand-rail on one side of the engine, tearing it away as one would snap a pipe-stem.

"Down they went, at the rate of a mile a minute. Brown realized that he had done all that he could, and that the only hope



"THE BOYS SWORE THAT HE MUST HAVE CLEARED SEVENTY-TWO FEET."

lay in getting off that engine before she turned over and pitched down the gorge.

"Brown got down on the tender-step, swung from the hand-rails for a moment, and then jumped. The boys swore that he must have cleared seventy-two feet, actual measurement, in that jump—but as it was on the side of a mountain, and he jumped downhill, there is nothing remarkable in that feat.

"The fireman hesitated until it was too late to jump. He had to stay. He opened the sand-box valve, but the pipes were clogged. He got out on the running-board,

and poked away until the obstruction was removed and the sand running freely.

"Material Curve was short and steep. The outside was elevated for thirty miles an hour, so that when the engine struck it going at the rate of sixty, it was practically the same as a flat curve. The engine rode on the inner rail. For a moment, it was touch and go whether she would overbalance or hang to the rails. Fortunately, she came down all right and held the steel.

"While all this was happening, the brakemen were not having a picnic. Being on top, they got the full benefit of the swing and roll as the trucks struck the low joints and high centers.

"They were compelled to lie flat on the deck and hang on to the running-boards with all the grip of demons. There was nothing else to do. If the cars went into the ditch, they would have to go with them. All they could do was to stick to the running-boards and trust to luck to get clear when they went down.

"As the train dropped over the summit, Blessington, back in the caboose, knew there was something doing. Fortu-

nately, the only passengers he had were Pawnee Charlie and his wife. He managed to pull the pin and cut loose from the train, and then found that he could hold the way-car under control with his brakes, while his train darted away down the mountain.

"He saw Brown as he dropped from the engine, and as the way-car whirled past the spot he noticed that Brown was still on his feet, and felt thankful that one man, at least, was safe. Blessington managed to hold the way-car under control, but he did not attempt to stop on the hill. That was impossible.

"With the usual stolidity of the Indian, Pawnee Charlie and his wife felt no concern. It did not occur to them that they were likely to find themselves in the happy hunting grounds in short order.

"For sixty miles, that train plunged down the slope, and though little more than an hour was occupied before it struck the three miles of level track below Cononcino, it seemed a lifetime to the crew.

"The grip of the brakes, which were still set, began to have an effect, and before the train had crossed the three-mile level she stopped.

"Ten gondola-cars next the engine were laden with steel rails and track fastenings. The stuff was scattered along the right-of-way just where it was not wanted.

"When Brown met Blessington, he told him that he believed he would much prefer playing monkey to attempting to hold thirty loads down Glorietta hill.

"If all stories are true, Jake had his troubles in the West. Running an engine in the mountains, with three-and-a-half per cent grades and sixteen-degree curves, was a vastly different matter from running an engine across a Missouri prairie between Sedalia and Kansas City, where anything over

one-and-a-quarter per cent grade was terrifying.

"They say that it was some time before Brown would shut off in time on the summits, and let his engine drift—and he frequently dropped down a hill working steam, when he ought to have had her drifting.

"But Jakie soon caught on. At that time the demand for men was so great that experience in mountain-running was not asked about, and each newcomer had to learn the road as best he could.

"Get over the division any old way, but get over, was the rule. It not infrequently happened that men were sent out on an engine who had never seen the road beyond the outer switch-stands of the yard, and there was no time to give them a chance to learn it. But as the road was under construction, there was no necessity or demand for fast time, and there was no one to kick if trains only ran within rifle-shot of the time-card. A man could manage to bang along over the road, even though he did not know it.

"Now, if there is one thing that will make a general manager get up on his hind legs, paw the air, and howl, that is a succession of engine failures. It not infrequently hap-



"NEAR THE ROUNDHOUSE WAS AN OLD MONKEY-CAGE. INTO THIS THEY THRUST JAKE."

pens that these are caused by a lack of funds in the motive-power department, or the neglect of the purchasing agent to honor the requisitions of the master mechanic for the spares and supplies that should always be carried in every storeroom.

"One-half the engine failures are caused by the neglect to have some little thing on hand when needed. The poor engine-runner is called on the carpet for an engine failure that would not have occurred if some store-keeper or purchasing agent was not trying to make a great showing for economy.

"Jake was where he could not get supplies, and his engine would have only such care as he should give her with the help of the wipers.

"He dropped over Glorietta Summit one day, with twenty-six loads behind him. About a third of the way down a road crossed the track after running alongside for half a mile, and then continued to follow the track

down the mountain for a quarter of a mile farther. There was no excuse for the driver of a team, coming in either direction, failing to see an approaching train.

"As he dropped over the hill, he hooked her up and shut her off, working only steam enough to run the air. The brakies were all on top. His train was well under control, when a farm-wagon, containing a man and two women, came up the hill toward the train.

"Jake blew the usual whistle for the crossing, and did not dream that the fellow in the wagon would not stop. Instead the man drove deliberately onto the crossing. There was no time to swear at his stupidity. Jake grabbed the reverse and threw her over, gave her both sand-pipes, and opened the throttle.

"With the engine in the back motion, he hoped that he could check the train and avoid hitting the wagon.

"Instead, he blew out his left cylinder-head. He hit that wagon square in the center. The women, who were in the rear seat, were dumped on the right side of the track, and the driver on the left, while the wagon was thrown into a field. He knocked off the headlight, and jammed the stack back at an angle of forty-five degrees. And he did not check his speed!

"As Jake swept by, he leaned out of the cab window, cussing. The yokel sat where he had been dumped on the bank, with open mouth, staring at the train. When the way-car went by, Blessington threw a piece of coal at him.

"There was no stopping the train now. They had to keep moving. Motion is money in rail-roading, and, in this case, motion meant not only saving the lives of the crew, but avoiding a wreck also. So, down the hill they swept. Jake could only work one side now, and so long as they were on a three-per-cent grade, he had to keep going.

"They got the train in all right, but Jake got ten days for plugging his engine and blowing out a cylinder-head. The farmer and his women and the team were unhurt, but, of course, there was a damage-suit, and the company had to pay, though it was entirely the fault of the farmer."



"HE TOLD HER TO
CROUCH CLOSE TO
THE BOILER-
HEAD."



"THE KNOT WAS SOON TIED."

"In the summer of 1880," said my pal, the old hogger, "there was a young engineer by the name of King on the *Katy*, pulling passenger between Sedalia and Parsons. He was a handsome young fellow, well set up, well-educated, and a gentleman.

"He was quite a favorite in Sedalia, and had a tenor voice which was fairly well trained. He formed the acquaintance of the daughter of a wealthy business man, and, in the course of time, they fell in love.

"The young couple were admirably suited, and finally King managed to pluck up sufficient courage to pop the question. He was accepted. For a time all went smoothly. The young man was a frequent guest at the young lady's home, and, so far as he could see, was not objectionable to the old gentleman. In the course of human events, it became necessary for King to ask the old gentleman's consent.

"Then there was trouble. Father told King that while he had no objections to him as a man, he had other plans for his daughter. He would not allow her to marry a greasy engineer.

"He ended by strictly forbidding the young couple to see or speak to each other.

"This was the worst thing the old man could have done. The daughter was a chip

off the old block, and just as determined and headstrong.

"It was not long until the old man found that the lovers were frequently in each other's company, and he determined to send the girl to an aunt in Cincinnati.

"Both were well acquainted with a young woman, the society editor of the *Bazoo*, and, through her, they established a means of communication. The fact that she was to be sent to Cincinnati was duly communicated, and a plan was at once set on foot to circumvent it.

"At that time, *Katy's* No. 3 pulled in from Hannibal shortly after 11 P.M., and would meet the Missouri Pacific's No. 4 from Kansas City to St. Louis, No. 3 following No. 4 as far as the roundhouse, where 4 changed engines for St. Louis and 3 for Parsons.

"The plan was that the young lady should have her Pullman reserved on No. 4 for St. Louis and board the sleeper at the depot, where all her friends would bid her good-by.

"The society editor, of course, was in the crowd, but claimed to be going as far as Jefferson City. So, when the train pulled out, the two girls went into the chair-car. The society editor, having only a couple of hours' ride, was not taking a berth.

"When No. 4 reached the roundhouse, there was none of the young lady's friends on board, so she quietly dropped off the steps of the chair-car opposite the roundhouse and hurried around to the Katy tracks to the south.

"Here she found King's engine standing on the house-track, waiting to back down and couple on to No. 3.

"He was watching, and as the dark form of the girl glided around the back of the roundhouse and came up on the right side of his engine, he leaped to the ground and lifted her into the gangway.

"He told her to crouch down on the deck, close to the boiler-head, where none of the railroad men would notice her. The fireman stood in the left gangway, so that any one glancing into the cab would not see the crouching figure.

"King did not draw a full breath until his engine had coupled on, and the con gave him the light. He pulled the throttle; and as soon as the train was clear of the leads, and swinging into her stride for the run, he got down and assisted the girl to the fireman's seat.

"He made her as comfortable as possible for the long night-ride from Sedalia to Parsons. The only danger was that the con might come ahead and see the girl, and King did not want her to be seen by any of the crew except the fireman.

"But King did not know that the society editor of the *Bazoo* was on the train, or that she had miraculously received orders at the last minute to go to Parsons, instead of Jefferson City.

"She knew the conductor personally, and after he had worked his train he came back and sat down beside her for a little chat. She informed him that her friend was on the engine, and that she was eloping with the engineer. King, she said, did not want any one to see her, so that, if the old man used his power with the railroad officials, the crew could plead innocence.

"The con was in the play in a moment, and he arranged that, when they stopped at Clinton, the *Bazoo* girl should go ahead to the engine and tell King that, wherever it was necessary for orders to be handed him, he should turn the engine over to the fireman and drop off as the engine passed the depot, so that the con would not have to go forward.

"At Clinton the *Bazoo* woman went ahead as agreed, and King felt easier.

"At Nevada the division superintendent

came ahead to the engine and talked a few minutes with King, whose heart was in his throat lest the super should take it into his head to ride on the engine.

"Just before they reached Fort Scott, he had the girl don a jumper, and jammed a cap down close over her short, curly hair.

"It seemed a whole year before they got away from Fort Scott, though they stopped only six minutes. From Fort Scott to Parsons it was plain sailing.

"As the sun rose over the prairie he glanced across at his sweetheart to see how she was holding up under the long, hard ride to one unaccustomed to the motion of an engine. But her eyes were bright, her color was good, and there was no trace of fatigue as she answered him with a smile.

"Just as he pulled into Parsons he noticed a hack drive up close to the left side of the track. He saw the *Bazoo* baby drop down from the front platform of the smoker and run ahead. By the time the train had stopped she was even with the cab. She told him there would be a conveyance waiting for him at the roundhouse, that the driver had instructions where to drive them, and then she dodged around the nose of the pilot and was just in time to help her friend down from the engine and into the waiting hack.

King's engine was cut off, and he pulled down and let in the other engine that was to pull the train from Parsons to South McAllister.

"He had to stand on the siding until No. 3 pulled out, and as he started to pull down to the siding, the editor of the *Sun*, who had been let into the secret, climbed into the cab, saying that he would ride to the roundhouse.

"Now, King wished that editor anywhere else than in his cab just then, but he felt that it would not do to offend him. As he jumped down to look over his engine the editor followed him, and told him that he had a cab waiting for him at the roundhouse, and that the girls had already driven to the parsonage.

"King grasped his hand and thanked him warmly. The two men climbed back into the cab; and No. 3 having pulled out, they backed down to the roundhouse. Without waiting to remove overalls and jumper, King, the fireman, and the newspaper man entered the hack and were whirled away.

"The knot was soon tied.

"A quick drive to the depot, a wire to papa saying that his daughter was now Mrs. King, and then the honeymoon."

COFFIN VARNISH.

BY CY WARMAN.

**There Was Trouble, and Then More Trouble,
and There Was Only One Cause for It All.**

NO. 7, the Salt Lake Limited, used to chase No. 21, the fast freight, into Salida, as a terrier chases a tomcat into the kitchen. If 21 was ten minutes late, she had to pull right into the yards, but if she arrived sharp at 4.15, the road engines would cut off at the coal-chutes, pull up and back in on the house track.

That gave the yard engine ten minutes to pull the freight in to clear the main line, allowing five minutes for variations, clearing the line for 7, due at 4.30.

Now, if you have never done one hundred and twenty miles on an alkali division in summer, you will say it's a small thing to scrap about. Why don't you pull on up into the yard?

That's all very fine, but just pulling up isn't all. The limited follows you in. The road forks here. The limited has to be cut and shifted into two sections—one for Leadville and the other over Marshall Pass to Salt Lake; for this thing happened when what is now the main line ended at Leadville.

It was summer in Salida. Johnny Hill and Johnny Carr came in on 21—double-heading. They were on time. The 217 and the 222, respectively, were the Grants, handled by these energetic space-eaters. Hill was ahead, and when the 217 was opposite the switch he hooked her over. The head brakeman pulled the pin behind the second engine.

All this time Killeen, the yardmaster, was giving frantic signals for the double-header to hoist the train up into the yard. Hill didn't appear to see these signals. When the yardmaster saw that the brakeman was cutting off, he jumped on the foot-board and

told the driver of the 106 (that was the goat) to back up.

Just as Hill and Carr got their engines into the forward motion, the goat jumped on to the frog and blocked the switch.

The yardmaster—whose word is law in the yard limits—ordered them to back up, couple on, and pull the train. Hill asked him where the yardmen were. Killeen intimated that *that* was his business.

"Bet four dollars they're over at McGuire's gin-mill."

"That's *their* business—back up."

"Have they any other business?" Hill asked.

Killeen knew that old Tom Andrews was on No. 7, and as he looked at his big watch she blew. The rear brakeman had gone back, and, a second later, they heard Tom answer his signal.

"Now will you back up? You still have two minutes to save your job."

All three of the engines were blowing off. Hill beckoned Killeen up under the cab window and told him to ask Carr. As Killeen went back, Hill's fireman dropped off, and picked up the pilot-bar of the 217. As he did so, Hill pushed forward, and, before the yard engineer knew what had happened, they were all coupled up.

Hill whistled Carr ahead, and then began a tug of war that resembled a fight between bulls.

If the goat had been on her guard she could have backed them up, but they got her going. All three were wide open, spitting fire and grinding sand. The air was blue with smoke and full of a smell like brimstone.

The goat screamed down brakes, but the two Grants, eager to get to the turntable, to turn and head for home, would not down.

At the water-tank, where the rail was wet, both the Grants blew up, and before they could get sand to them, the yard engine started them back.

The racket created by the three engines brought Carl Ridgway, chief clerk in the office of his father, the superintendent, bare-headed, to see what was happening.

Jones, the master mechanic, rushed from his office, and De Remer, the foreman, from the roundhouse.

The yardmaster and the head brakeman on the freight were scrapping for the possession of the switch. There was such a rain of fire from the three stacks that nobody seemed to care to rush in and pry them apart.

Without taking time to hear the case the motive-power officials were inclined to sympathize with the road engineers, while young Ridgway leaned toward the yard crew.

While they scrapped, old Tom, back on 177, swore audibly, while traveling men, who knew the road, left the train and hurried up to the hotel to supper.

It was smooth sledding for the goat until *she* struck the wet rail. By this time, the road engines were on dry sand. One more run and they shot the goat over to switch. The brakeman and the yardmaster were still struggling for the switch when Carr's fireman threw it over and the two Grants backed into clear.

When the officials had succeeded in pulling Killeen from the brakeman, the goat backed down, coupled on, and took the freight in off the main line; No. 7 pulled up to the station fifteen minutes late.

Hill and Carr were in bad.

The law of the rail is to obey orders on the road and kick after.

The conductor of No. 7 was first to report. Cause of delay: "Line blocked by twenty-one."

Dispatcher to Hill: "Matter at Salida?"

Hill: "Yard crew."

Dispatcher: "Matter with yard crew?"

Hill: "Coffin varnish."

The yard crew, save Killeen, were still lopping up intoxicants at McGuire's, along whose front porch lay the lead of the yard

tracks. Killeen, with an eye in mourning, had to make up the two sections of No. 7, one for the third, the other for the fourth, division, getting them out thirty minutes late.

Meanwhile, Hill and Carr received orders, while their engines were being turned, and were now screaming down the Grand Cañon of the Arkansas for Pueblo, wondering what they would do to kill time for the next thirty days.

When the two sections of 7 and three sections of 21 had departed—the last section an hour and forty minutes late—Killeen went over to McGuire's to round up his Indians.

As the evening was young, some of them objected to the yardmaster's interference, and, eventually, they started a row among themselves. One fellow found a gun and chased the yardmaster across the track as No. 8 was coming in from Leadville.

Just here, John Hill's good fortune, which has chased him through forty-five years, turned up. Mr. Kelker, the master mechanic to whom Hill and Carr would have to explain on the morrow, was in the east sleeper—just going to bed.

Before the train had stopped at the station there was a loud report outside and a bullet smashed through the window immediately over the master mechanic's bed, ripped through the curtains, crashed out through another window and sped on its way.

Hill and Carr were not called to go out the following afternoon. They were called to go *in* and see the master mechanic.

They went. The Old Man had all the papers in the case before him. Hill recognized his wire of the previous night to the train-master. The master mechanic asked:

"What was the trouble out at Salida?"

Hill: "The yard crew."

Master Mechanic: "There was some excitement when 8 came through."

Hill: "Yes. That was Rough Neck Ryan shootin' at Killeen."

Master Mechanic: "What made him want to kill Killeen?"

Hill: "Same thing that made all the trouble, Mr. Kelker—coffin varnish."

A green fireman can pull out with a popping valve on the hardest division, but pulling in tells the story. A good ending beats a good start.—Reflections of a Tallow Pot.

THE MAN WHO WASN'T GAME.

BY WILLIAM S. WRIGHT.

I Make a Man Pay for Taking a
Life, Even at the Risk of My Own.

SYNOPSIS OF PREVIOUS CHAPTERS.

JOHAN ANDERSON, at the age of thirty, down and out, relates his experiences and hardships. At the age of twenty-one, resenting a reprimand from his father, he ran away from his home, taking with him twenty dollars which he had received from his mother to make some purchases in a near-by town. Arriving at the city at night he lands in a miserable hotel, where he pays ten cents for a bed. Here he meets a man calling himself Billy Brown, who immediately adopts him as a pal, taking him to breakfast the next morning and telling him he can put him next to a good job in the evening. Billy is recognized on the street, by some detectives as Red Pete, wanted for a bank robbery, and in the succeeding chase he is shot. John Anderson is arrested as his accomplice. On the avowal of Red Pete that he is not his pal, Anderson is released the next day, but notified to leave town within twenty-four hours. Concealing himself under a seat of a passenger-train, he rides to a small town in western Nebraska. On being discovered by the conductor, he is put off, after receiving harsh treatment at the hands of some of the passengers. Here he is arrested as a tramp by the town marshal, but is speedily freed by the squire, who generously gives him ten dollars, recommending him to go to the village hotel for the night. He is grudgingly given a room, and during the night is awakened by a hand at his throat. A robber, who had witnessed the changing of the squire's bill at the desk that evening, has entered his room. The robber escapes and our hero is again penniless. The owner of the hotel befriends him, giving him a job in his kitchen, where he stays until he has sufficient money to take him to San Francisco. After several days' fruitless search for work, he finally lands a job in a stable, but early one morning is shanghaied and finds himself in the hold of a ship outward-bound.

CHAPTER VI.

A Life on the Ocean Wave.



HE ship that I was on—against my wishes—was the Molly O. Malone, a brigantine of some two hundred tons' burden. I learned, in the most startling manner, that she was bound from San Francisco to a port in China, where she would load coolies and then sail for a port in the South Sea Islands, where the coolies would be sold to a wealthy planter, who had planned this particular expedition because he was looking for cheap labor.

When I awoke in the morning, a big Swede, who, I afterward learned, was the second mate of the ship, told me to go to the fo'c's'le and "get some grub."

There were six other men in there—all big, husky fellows save one. This particular one was a weak and puny lad. He could not

have been more than seventeen years old. He was crying bitterly, and it was evident that he was refusing to eat.

"Hallo, Jack," said one of the men cheerily. He did not know that my first name was "Jack." He merely addressed me by the term that is applied to all landlubbers when they ship before the mast, either against their will or not.

"Where did you come from?" asked a second.

"Shanghaied lubber," quoth a third. And realizing that the worst thing that I could do would be to show that I was displeased with my surroundings, I smiled cheerily and said:

"Yes, I'm a shanghaied landlubber. But I've got two strong hands, and I'm not afraid of work—or anything else," I added for good measure.

The men were all eating. On the rough table around which they sat was a huge tin kettle of rather savory coffee, a large loaf of doughy bread, and a mess of some sort of

meat and potatoes cooked together. A large white pitcher was filled with water.

This mess was placed in the center of the table, and each man dipped into it at pleasure. Hands, forks, and spoons were used with equal facility.

Hunger had hold of me, and it all tasted good. I must admit that I ate with a relish that must have puzzled my companions of the deep. But I noticed that the weak lad's plate was empty, and that his sobbing was pitiful to hear.

"You're not much like your pal there," said one of the men, addressing me and pointing to the youngster.

"Cheer up there, sonny!" yelled one of the men. "We ain't goin' to hurt ye."

But the poor fellow only cried all the harder. He actually wept as if his heart was breaking—and it was. Only once during his sobbing I heard him speak. Then he said:

"I want—to—go—home!"

Then it dawned on me that, like myself, he had been kidnaped.

The sailors jeered him roundly, but I said nothing. In my heart, I felt sorry for him.

I could understand how they could steal a big, husky fellow like myself, but why they should want a poor little waif like him was beyond me.

One by one the sailors finished their breakfast and filed out. We two were left alone.

I went over to the poor fellow and tried to comfort him. He told me that he had been walking along the water-front of San Francisco with his father, looking at the shipping, when, in some way or other, he and his father had become separated.

He suddenly felt a hand clapped over his mouth, and, before he was aware, three men had bundled him into a hack, which was rapidly driven away.

One of the men pulled a revolver and ordered him to keep quiet. He began to cry, he told me, and, fearing that he would make a noise and thwart their plans, they put a gag in his mouth.

The next thing he knew he was in the hold of the ship. He had not eaten anything since he was taken aboard. His condition was pitiful. When he finished his story he began crying again, and he moaned and cried until his poor little frame shook with grief.

I tried to comfort him by telling him that the men would not hurt him, and that we two would stick together. Whether or not he believed that I, like himself, was a "sniv-

eler," the sailors' term for the shanghaied man, I do not know.

He did not seem to trust me, somehow or other, and just as I was about to convince him further—for I wanted him to know that I was his friend—the big Swede stuck his head in the fo'c's'le door and swore at us.

"Get out o' here, and get to work!" he yelled.

I left the boy and went out on deck. I found there two big stones that looked very much like hard pieces of sandstone, and shaped about the size of an ordinary cobble.

They were placed beside two buckets of water.

"Get down and scrub," said the Swede, pointing to one of them.

I dropped on my hands and knees, and he did also, but only for the purpose of showing me.

He sprinkled a little water on the deck, and then, taking the stone in both hands, proceeded to rub it over the wet place until it shone with cleanliness.

This interesting pastime is called "holystoning," and when it is kept up for several hours under a blistering sun one wishes that he were on a torture-rack.

The Swede stood over me for several minutes to see how I progressed. "Harder! Harder!" he yelled, prodding me in the ribs with his boot.

I bent over it with a will. I could feel the sun on my back, but, keener still, I could feel the piercing eyes of that giant Swede. Finally, he was satisfied that I was doing my best, and he turned from me, saying:

"You do the port side."

It was evident that the other bucket and the other "holystone" were for the unfortunate youngster who was still crying his eyes out in the fo'c's'le. The Swede mate looked around, and perceiving that he was not on deck—that he had failed to obey orders—he went forward to get him.

Continuing my "holystoning," I turned so that I could see what would happen. I saw the big mate go to the fo'c's'le door. He cursed and called. Evidently the youngster did not reply, for the mate darted into the fo'c's'le, and the next thing that I saw, my kidnaped companion was being hurled to the deck by a force other than his own will. He sprawled along for ten feet.

He managed to find his feet. He stood there in the shade of the foreshrouds, the most wobegone object in all the world.

"Go aft!" shouted the mate, "and go to work!"

He made no reply. He could not. Again the mate ordered him to the holystone. Poor lad! I do believe that he made one feeble attempt to obey, but it was too feeble. His tears were blinding him.

That human brute rolled up his sleeve, drew back, and, with a force that would have felled an ox, struck the boy square in the jaw. He went down in a heap.

He lay very quiet—his face red from crying, his poor, weak hands clutched in what might have been the feeblest effort to defend himself. I stopped and looked up.

"Go on, or I'll give you the same!" yelled the Swede, looking at me, and accompanying his words with oaths.

I bent to my work. I didn't care to go up against that fist—not yet.

He kicked the boy lying on the deck. He swore at him, and cursed him. He turned him over on his back with the rough boots of him, and the lad's face looked motionless at the burning sun.

He picked him up as easily and as roughly as one would handle the carcass of a beef, and stood him on his feet.

But the boy could not stand. He fell motionless, forward. I surmised, by the peculiar, listless manner in which his hands hung by his side, that he was dead.

And I was right.

CHAPTER VII.

I Take the Aggressive.

FOR a second the Swede stood looking at the body of the boy whom a kindly death had saved from the worst torture a man can know—a life on a slave-ship. Then he ran aft and down the companionway to the captain's cabin.

In a few moments he returned. The captain followed. I kept on with my scrubbing, and cold chills ran along my spine. My brow was covered with sweat.

The captain looked at the body a moment, leaned over it, and put his hand on the spot under which the heart once beat.

He was convinced, without further parley, that his mate was a murderer, and ordered the body consigned to the deep.

"Lend a hand here!" yelled the mate.

At first, I did not know that he referred to me. But he stared at me, and repeated his orders. Then he called to the man at the wheel.

We were going before a calm wind, and so the helmsman had only to lash the wheel

with a piece of line kept on deck for that purpose and come forward.

I left my holystone and stood beside the corpse, awaiting further orders. The murderous mate went to the fo'c's'le-deck, and returned with three long marlinespikes and some rope.

"Lash him to these!" he ordered, as he threw them to the deck.

The sailor and I bent over. He knew what to do—I didn't. But I blindly followed him, and, in a few moments, we had tied the marlinespikes to the dead boy's legs.

"Now, heave him over!" ordered the mate.

The sailor took him by the feet, and I put my hands under his head. My heart was going like a trip-hammer. I wanted to show him some human respect—I wanted to be as gentle as possible; but the mate's "Hurry, there!" indicated that the Molly O. Malone was no boat for sentiment when it came to burying her dead.

We lifted the body to the taffrail and tipped it into the sea. The heavy spikes carried it from sight.

The helmsman returned to his wheel. The Swede returned to his brutality. I returned to my "holystoning," and—I must confess—a few of my tears mingled with the water and the stone to make the deck more white.

We sailed on, the hot sun still beating down on my aching back; but the deck was getting whiter and whiter as I plied my muscles to the stone. It was a digression, anyhow; and, while I was toiling, I thought of that poor lad sinking to his grave in the deep, of his parents, of the awful murderous mate that might end my life in the same manner if I thwarted him.

And, while these thoughts ran through my mind, I resolved that the death of that boy would be revenged in some way or other.

I was born with a sort of fighting mania. It is a mania that is kindled whenever I see any one getting the worst of it. It is the feeling for the underdog.

Many of us have it. Whatever it is born of I do not know, but it is certain to rankle in the breast of the man who has the blood of sympathy in his veins. I believe such men are really human.

The more I thought, the more I wanted to get at that Swede; and I believe that if he had crossed my path at a certain moment that day, I would have picked up the first thing handy and let him feel my wrath.

But as the moments wore away, I looked at the situation more coolly. I would have

my revenge, but it should come at a time when I would not get the worst of the battle.

CHAPTER VIII.

I Try to Make Good.

WE sailed on and on with the monotonous precision of day unto day. The good ship behaved herself well, the weather held fair, the wind remained steady but not strong, and the men, including myself, were now in the regular routine of their work.

The Swede mate said nothing to me, for I did my work—always the dirtiest about the ship—without a qualm.

Perhaps he felt that I had learned a good lesson from the unfortunate lad, and—well, perhaps I had.

There was one thing—he could not kill me with work. I was equal to any task he ordered done.

Work never had horrors for me, because I always looked on the bright side of it, and went at it with a sense of pleasure. On the other hand, nature had blessed me with one of those bodies that can stand any kind of wear and tear.

I began to know the sailors, and found them all friendly. I was finally assigned regularly to the second mate's watch, which comprised four others besides myself.

One was a tall, thin man from San José, California, whom we called Charlie. Another was an Italian who had deserted from a war-ship of his country, and who was known as Tony; and the other two were long-mustached A.B.'s. of the Captain Kidd type that I used to read about in story-books.

Our lives, however, were anything but story-book lives. If there was any glamour or romance on that lime-juicer, it must have been in pickle. None ever told a story, none ever sang a song, none ever related daring escapades with pirates on the high seas.

We were just an ordinary, hard-working crowd, with a sort of kindly bearing toward one another. We had but little to say, as I have indicated; but we never spoke of two things in particular.

One was the death of our unknown companion; the other was the destination of the Molly O. Malone.

Just why this second query seemed unanswerable I do not know. None of the crew, aside from me, seemed to care. I was on the alert, however; but every man I asked set the answer aside as if it were of little or no importance.

One night, while I was seated on a coil of rope on top of the forward hatch, I received an unusual shock.

The Swede mate approached me, and really spoke to me in a pleasant manner.

I had been given to understand that it was far from ship etiquette for a mate to speak in friendly fashion to any of his men, but this man—whom I hated from his head to his feet without reserve and in a manner that left no opening for anything but hatred—had actually come up to me, and was speaking to me in a kindly tone of voice.

"Well, how do you like it?" he asked, drawing a long whiff of smoke from his pipe.

"I'm getting used to it," I replied. "I find the work pretty hard, but—"

"Have you ever been to sea before?" he asked, twisting the words to suit his foreign method of expression.

"No," I replied.

"You'd make a pretty good sailor. Do you like the sea?"

Then I replied:

"I have not been to sea long enough; but there is something about the life that appeals to me. I think that I might like it if I were on a different sort of ship."

I had hopes that this might anger him. I wouldn't have cared if he had landed on me then just as he had landed on the unfortunate boy. I was ready for him.

But, instead, he only smiled. His great hams of fists hung listlessly at his side. I dropped my eyes for a moment to take them in.

What a chance for a heavy-weight pugilist, thought I. Six feet tall and over; shoulders like the back of a cab; arms that hung almost to his knees, and those mighty hands! Added to these fighting qualities, he had the thin hips of the ancient warrior, and an intelligence which would have stood him in good stead.

He only smiled.

"This is a good ship," he said. "We are on a splendid journey. The men will have the very best of treatment, if they will only do as I say."

"What do we get paid?" I asked.

"That depends on what we do after we leave China."

"Are we bound for China?" was my next question.

"Yes," he replied; "we go there for Chinese laborers. There's big money in it. We kidnap 'em; then we take them down to the South Sea Islands, or to South America,

where we sell them to the planters who want good labor for little money.

"Now, I've been watching you, boy," he went on, speaking more kindly than I believed he could speak; "and you're the kind that knows how to work. Besides, you are not the ordinary sailor. You've had education. I can tell that by the way you mind your business."

To be sure, he was trying to lure me into his vile business of slave-trading.

My first impulse was to reach for the nearest spike and let him have it full on the head—but that would have been foolish.

He would have had the best of me; for, even if I had felled him, he would have called the other men to his assistance, and I would have been put in irons or shot—and I did not want either.

"I will play with this gay lad," said I to myself. "'Tis a long journey that I have before me, and when the hospitable coast of China looms up on the bow, then he and I will have our little say. Meantime I will be diplomatic, and I will even become a slave-trader if it will please him."

The days wore on, and the ever-varying life of the sea charmed me.

I began to like it. There was something spirited in the life. There was the risk and the danger which I liked; and when we sped before the wind, or reefed sail in a squall, I loved the sensation. It was so real—so exhilarating!

The Swede and I became good friends—at least so he thought. I had promised to give him my answer about joining his slave-trading gang when we reached China.

He never pressed me to decide against my will, but he continually persuaded me to do so.

Not once on the long journey did he ever refer to the young man whom he had killed. Not once did he even hint that the boy had been aboard. One night I made up my mind that I would speak to him about it; but, on debating it in my mind, I decided that I had better wait.

As we approached the Orient, uncertain winds carried us toward the south; and one morning, just after dawn, the man at the bow sang out, "Land ho!"

He was pointing over the starboard bow, and there, in the dim haze, we could outline a mountainous land.

It was the first time that I had ever seen land from the sea—and it was a strange sensation. At first I thought that it was a cloud hanging low on the horizon, and my childish

and repeated "Where! Where! Where!" must have startled the other sailors to laughter.

As the day wore on, it loomed larger and larger ahead of us. We were making straight for it; and once I noticed the captain come on deck and "shoot the sun," only to nod to the mate that all was evidently well, and to keep her head into the wind.

I had learned to steer, and took my place at the wheel whenever my turn came, just the same as any of the able-bodied seamen.

It came between six and eight bells that night; and, as the moon shone bright and clear, the captain decided to keep before the wind until we got too close to the land ahead, when we would take a tack offshore. Of this I was not sure, but I imagined, from the little sea knowledge that I had gained, that this would be his idea.

The wind freshened toward ten o'clock, and the moon kept its vigil in a clear sky. The bell had just struck six times when I jumped from my bunk in the fo'c's'le, where I had been reading, and, clad only in overalls and shirt, walked aft to relieve the man who was then steering.

He stood aside to give me the spokes, and said, as he did so: "Keep her full."

This was his last order, and, of course, it had to be passed on to me.

I nodded, took the wheel, looked up at the topsails, which were bulging with the wind, and knew that I was on my course.

The land was now very close, perhaps only eight miles away; but it presented a grand and majestic sight in the moonlight. It seemed that the mighty mountains, rising out of the sea, were ready to topple over on us.

There was not a light visible—not even a beacon of the sea—and it seemed as if we were approaching some strange coast, some fairy-land not recorded on the maps, but which had come out of the sea like a mighty Titan to greet us.

As we drew nearer, I noticed a series of small, twinkling lights near the horizon. They looked like the lights of a small village, and, with malice aforethought, I brought the Molly O. Malone around so that she was heading straight in their direction.

I bared my breast to the cooling breeze from the shore which now reached us. I noticed that it was redolent with the odor of spices and strange woods that carried the tang of encouragement into my veins, heightening the plan that was rapidly forming in my mind.

The Swede came out of the fo'c's'le,

looked at the stars, then at the land ahead, and came aft.

The instant that he caught sight of the lights on shore he yelled to me:

"Port! Hard a port!"

I brought her around as quickly as possible.

"Keep her off," he said. "Why didn't you let me know that we were so close? Keep her off!"

I did not reply, and he went below. When he was out of sight I let her come back to starboard so slowly—oh, so slowly!—that he did not notice it. I estimated that we must have been about five miles offshore, and my plan was to keep her about that distance until I could carry out my program.

The wind was dying, and the water was calm. Save for the lapping of the waves against the vessel's prow, I could not hear a sound.

We were hardly making five knots an hour, when the wind died altogether. The sails were soon flapping idly, and then came that monotonous noise of the lime-juicer, the bumping of the staysail block on the deck as the sail tried to pick up each vagrant gust.

This noise brought the Swede mate to the deck again. It told him that all was not just right. He looked about for a second, and then came aft to the wheel where I was standing.

"Didn't I tell you to keep 'er off?" he yelled.

I simply nodded my head.

"Then why didn't you—" He uttered an oath.

"Because I didn't want to," I replied, without a gleam of excitement.

My moment had come.

Now was the time for him to pay for killing that poor lad whom his men had shanghaied.

I slipped the lashing on the wheel-spokes, and, before he had time to realize what was happening, I fairly jumped at him with all the fury of a tiger.

My hands were around him, and I was choking him. I could hear the blood gurgling in his jugular vein, and, in the faint light, I could see his eyes bulging from his head.

Having made the attack, I had the advantage. I got as close to his hot and sweating body as possible, because, if I kept any distance from him, he would have been able to hit me.

Ere he was aware of it, I had forced him against the house. I bent him back until his

spine must have cracked, and, with my hands still on his throat, I thrust my knee into his stomach.

"Now, you dog!" I said. "I'm going to make you pay for killing that boy!"

Just to rub it in good, I cursed with unwonted enthusiasm, and heaped the contempt of contempt on him in words that expressed my feelings beyond a doubt. But he was slowly getting the use of his hands. Those giant members were gradually getting a grasp on my body; and it was time to act.

Tightening my grip on his throat, I lunged him to one side, tripped him, and hurled him against the taffrail.

Before he could regain his feet I had pulled a marlinespike from its socket. He made for me, but I did not spare him.

The marlinespike crashed into his head, and he went down into the lee scuppers like a fallen beef.

I thought that I had stunned him, but he was up and ready for a new attack; and perhaps the only thing that prevented me from finishing him was the fact that he yelled for help.

My plan was to beat him into unconsciousness, jump overboard, and swim ashore.

I was obliged to jump sooner than I expected, however, for the captain came up the aft companionway, and the first mate, with whom he had been playing cards in the cabin, appeared at the forward way.

I saw a glimmering pistol in the hands of each.

I knew that my life was not worth more than the first shot that would be fired. Rushing at the Swede, I landed a crashing blow on his head for good measure. I saw him go down again as I nimbly leaped the taffrail and shot into the water.

I struck out for the shore. Looking over my shoulder, I saw the captain and the mate start the foolish scheme of shooting into the water. I had only to surmise when they might pull their triggers and then let myself sink. When the bullet struck the water, its impetus was broken and its course deflected. They couldn't possibly harm me.

Once or twice I heard the bullets go *ping* as they struck the water close to me, but I kept on—each stroke bringing me closer to the shore.

I knew that I had the swim of my life ahead of me, but my plan was to get out of range of the bullets and then swim easily so as not to exert myself.

Finally the shooting stopped. I turned in

the water, and could see that the Molly O. Malone was pointing her nose outward. It was evident that her skipper had decided to take no risk in coming closer. I surmised that he might have hove-to until morning, so that he could get his bearings and make port, but she seemed to have caught a land breeze, and, leaning over in the moonlight and making headway, she was a picture that I shall never forget.

I struck out boldly for the shore, but a strong current seemed to be forcing me back. It was a powerful current, too; but I was game. Once or twice I became somewhat exhausted, but, for relief, I would turn on my back and float for a moment.

However, I knew that this sort of thing only retarded my progress, and my rests were not for long. I kept on and on.

Now and then I felt a peculiar numbness in one of my legs; now and then some of my muscles seemed to be getting useless. Now and then the shore and the lights seemed to go farther than come nearer, and the great ocean that lined up in front of me seemed a turbulent barrier which no human being could cross.

But I kept on—slowly and mechanically. My mind was ever on my goal. I kept saying to myself: "You must make it! You must make it!" and I smiled as I said it, and this seemed to give more strength and more courage.

I can never write just what sort of feeling possessed me, when suddenly a stretch of beach—white and sandy—appeared before me. It looked like the snowy beach of a fairy-land. Now, I could hear the water lapping the shore. Now, I put one foot down to see if I could stand.

My foot touched a sandy bottom: I thanked my stars. Fate was indeed good to me. I waded in, step by step, and at length I stood on the beach. Something reeled in my brain. The exhaustion was beginning to tell. I sank to the ground. It was soft and welcome. Wet as I was, I fell asleep.

CHAPTER IX.

The Village in the Distance.

THERE I was—a modern *Robinson Crusoe* on his tiny isle. When I awoke the sun was just breaking through the east in a radiance of opal glory. Its shafts flung high to the heavens in golden majesty. I arose stiff and sore, but thoroughly rested, and took in my situation.

I was on an island about a mile from the mainland—if a small protuberance on a coral reef could be called an island. I could see the white, thatched houses nestling on the shore, and I could also see some natives, clad only in waist-cloths, walking to and fro.

I was thirsty. My mouth and tongue were swelling for want of water. My first intention was to hunt for fresh water on my island, but a hasty survey told me that it would be futile.

I was on the tiniest of atolls, and the water in the center was so brackish that it was undrinkable.

Putting my hands to my mouth, I tried to yell; but my voice was harsh and sluggish, and did not reach to the other shore. I took off my shirt and, running close to the water, waved it.

I had not done this for more than a few moments when I noticed a commotion on the mainland. Several natives had come down to the water's edge and were gesticulating wildly. Others followed them. Soon the beach was covered with them—and then a canoe was put out from the heavy trees, four men jumped in, and they were soon paddling in my direction.

As they came nearer and nearer I could see that they were very black. One, in particular, wore his hair high in some fantastic dress, and was talking with more vehemence than the others, pointing at me all the while.

They came closer. I did not like their looks. I turned and looked out to sea—just why I do not know. The Molly O. Malone was nowhere in sight.

I turned toward the land again. The natives were now close to the atoll, and were eying me curiously. Presently they beached their canoe. They approached me with some hesitancy. Two of them, I noticed, carried some kind of death-dealing clubs.

They walked toward me, and I smiled and tried to show that I was friendly, and said "Good morning," in English—which language they evidently did not understand.

They jabbered in their lingo, but I could not understand them. I pointed to my mouth, and made other pantomimic signals for a drink of water.

They motioned to their canoe, and I jumped into it. The four pushed it into the water until it was well afloat, and then scrambled aboard and plied the paddles.

On the way to the mainland they kept up a constant talking. They seemed to be in a wordy fight about something.

The shore was now black with natives,

and they almost pushed one another into the water as the canoe was beached, and they almost crowded me to suffocation as I stepped ashore. I was very weak, and I sat on the ground.

I pointed to my swollen tongue and parched mouth. The leader of the quartet yelled "*Yera te papo! Yera te papo!*" with such vehemence that several dozen natives scrambled through the thick growth of trees and returned with a variety of vessels filled with clear, cool water.

It was high time that I had it, too. The fever was mounting to my temples, and I was beginning to choke.

I drank the water in great gulps. It permeated my system, and made me feel cool and strong. I sat there with that great crowd around me, seeming unable to get sufficient of the water—now drinking, now bathing my head and face. I threw it all over my body—it was so fresh and cooling—and some of the natives helped me out by throwing it on me from the vessels they carried.

(To be continued.)

A CAR WITH A FIREPLACE.

A MAGNIFICENT private-car, said to be the most sumptuous railroad coach ever constructed, has been sent from England to South America for the use of the President of the Argentine Republic.

The coach is seventy-eight feet long and ten and a half feet wide, and is constructed of steel. The exterior is painted in cream, with gold and blue lining, the national Argentine colors. At one end is the president's day saloon, a compartment seventeen feet three inches long, decorated in the Louis XVI style, with green silk panels and carpet. At one end of this is a real fireplace with mirror above, and means for ventilation. The roof is tastefully carved.

Adjoining this compartment is a bedroom, also fitted with green carpet and upholstery, and furnished with a bedstead finished in old gold, with the

In a short while the leader of my rescuing-party approached me. He was muttering something, and I could see that he was trying to make me understand. He motioned to me to rise. I did so, and he indicated that I was to go with him.

He led the way into the village, and I followed him—and behind me was a crowd of native men, women, and children, all talking and gesticulating about the strange visitor who had been cast upon their shore.

Presently my guide stopped in front of a low house, and bade me enter. He entered alone with me. I found myself in a clean room, furnished with a table and a chair made of the stout branches of a tree covered with the hide of some animal. On the floor was a mat and a pillow made of weeds. There was only one window, and that was very small and near the roof.

My friend or foe—I knew not which—after seeing me safely inside, closed the door and left me alone.

I heard the bolt clang, and I knew that I was locked in.

Argentine coat of arms at the foot. The bedroom has three doors, one leading to the day saloon, one to the corridor, which runs along the side, and one to the bathroom. By locking any one of these doors, all become locked.

The bathroom is provided with a "needle bath," and is finished in marble with silver-plated fittings. The upper panels are of enameled metal, and the floor is artistically covered with india rubber and cork mats.

The next compartment is a study, or library, finished in mahogany, with red leather chairs and a red carpet, upholstered with French gray silk panels, the general scheme being white, with green leather chairs and carpets. These two rooms have one bathroom. A kitchen and attendants' compartment take up the remaining space in this traveling palace.—*Popular Mechanics.*

MOVING A VILLAGE BY RAIL.

A TRAINLOAD of miners' houses, a two-room cottage to each car, was recently made up at a way station on the Weatherford, Mineral Wells, and Northwestern Railway, in Texas, and taken at a fifteen-mile clip to another and better mining site along the line.

Each room in these cottages was twelve feet by fourteen feet, with nine-foot ceilings, and, as mounted on the cars, the comb of the roof stood

fifteen feet and four inches above the rails. At this speed of fifteen miles an hour a number of six per cent curves were negotiated, where the outer rail was elevated four inches. The journey was successful in every way.

It is not stated whether the houses were stripped of furniture or that the domestic economy of the households was interrupted during the trip.—*Chicago Tribune.*

Pinkerton Days on the Lake Shore.

BY JOHN H. PAINÉ.

Some Pioneer Railroad Work of the Famous American Detective Which Resulted in Putting Behind the Bars Some Clever Criminals Who Had Long Defied the Police.



HE general manager of the Lake Shore Railroad was sitting in his office studying the report of a division superintendent on the latest of a series of disastrous wrecks which had occurred in the neighborhood of Chicago. That was forty years ago. The general manager was sorely troubled. Not only had the wrecks cost the railroad thousands of dollars in damages, but the officials had been unable to find any explanation for them.

It had been supposed that the accidents were due to defects in the road-bed, but their frequency, coupled with the fact that they had all occurred on the same division, pointed to train-wreckers.

Guards had been stationed along the division, but those who were perpetrating the outrages seemed to have an intimate knowledge of their movements, and the wrecks went on as before. The general manager, after going over the report of the last accident, failed to gather any suggestion from it as to the identity of the culprits, and he sent for the general counsel of the road.

"Cheesbrough," he said, when that official entered his office, "I'm stumped! I've exhausted all my resources, and I'm just as far from knowing how these trains are wrecked as I was at the beginning."

"If I were you," said Mr. Cheesbrough, "I would call on a man whom we have used in our office lately to run down some damage claims for us. He's bright, resourceful, and, I think, could solve the case for you."

The general manager sent word to the person thus recommended to come to his office, and the next morning he appeared.



"MARTIN'S SPEAK-EASY."

He was rather commonplace in appearance, somewhat short, with a round, expressionless face. His manner was quiet in the extreme. The general manager told him briefly of the wrecks, and explained the circumstances attending them. The other listened attentively, and then, putting on his hat, started to leave the office.

"Where are you going?" the general manager asked.

"I'm going to get your men," replied the visitor.

"But we haven't discussed the terms," said the general manager.

"Well, if I catch those train-wreckers, I shall expect the Lake Shore Railroad to pay me five thousand dollars," he replied. "If I don't catch them, I don't want a cent."

Three weeks after this interview the yardmaster of the Chicago yards called on the general manager.

"I wish you would see the city authorities, sir, and ask them to do away with a grogshop that's been opened right on the borders of the yards," he said. "It's a disreputable shanty, and the men are getting drunk there in droves."

On the Job.

The general manager made a note of the location of the place, and in a day or two strolled through the yards to investigate. He found a rough board shanty standing in the outskirts of the yards, with its entrance surrounded by a crowd of switchmen, car-couplers, and other employees of the road. He was very indignant and threw open the door of the shanty, intending to order the proprietor off the grounds. Behind the bar, however, to his great surprise, he saw the man he had interviewed but three weeks before in a dirty apron, with the sleeves of his flannel shirt rolled up, serving beer from a row of kegs behind a rough plank bar.

Speechless with amazement, the general manager gazed at him for a moment; and then, finding his look returned with a blank stare, totally devoid of any sign of recognition, he turned on his heel and left the place.

Soon he was in receipt of more complaints from subordinate officials of the road, telling of the demoralization wrought among their men by "Martin's Speak-Easy," as the shanty came to be known. The master mechanic said that men who had never been known to drink would now turn up at the round-house intoxicated, and the yardmaster attributed three or four bad smashups among

the freight-trains to the evil influence of Martin's bar. Things went along in this way for several weeks, when one morning the general manager received this telegram:

You owe me five thousand dollars. Your men are in jail in Elkhart. Please send counsel to prosecute.

The general manager was so interested in the case that he went with the counsel of the road to Elkhart the same day. There they found two switchmen who had been employed in the yards. The bartender met them at the station and told the story of how he had run down the wreckers.

Setting the Trap.

"At the very outset, everything pointed to its being the work of employees of the road. I thought at first of taking a job on the line and trying to pick up a clue in that way, but railroad men are always quick to recognize a spotter and wouldn't be apt to put confidence in a green hand anyhow.

"Bartenders, on the other hand, for some reason or other, seem to know everything that's going on, so I decided to open a saloon. I didn't have any luck at all the first week or so, and I was beginning to feel discouraged, when finally one night one of the two men I have in jail here came into the shanty about seven o'clock and asked if he might leave a couple of spike-draws behind the bar. He said the tool-house was locked but that he'd put them away later in the night. I felt pretty sure then that I had one of my men.

"I had an assistant in the shanty who was dressed up to represent a dirty, saloon loafer. As soon as the switchman, who had brought in the spike-draws, left, I told this man to get ready, and together we waited for the switchman to come back. He turned up about 11 o'clock and asked for the spike-draws. I gave them to him and he left the shanty. My man, Johnson, was lying on his stomach alongside the shanty on the watch.

On the Trail.

"As soon as the switchman came out he followed him. I stopped just long enough to take off my apron, and then hurried after them. I could see Johnson dodging along the railroad tracks, beside freight-cars through the yard and I followed him until we came to the outskirts of the yard where the tracks began to come together.

"Johnson stopped, and I came up with him. He pointed through the darkness ahead without speaking, and I could make out dimly the figure of another man talking to the switchman. The two lighted a lantern and then started ahead up the tracks. The lantern made it easy for us to follow them, so we let the men get some distance ahead in order to avoid any danger of alarming them.

"We must have trudged four miles out along the main line, when the lantern in front stopped. We were far behind, but we didn't dare come up with them at that point, the road being open and no means of concealment offered. We waited to see what would happen, and, after a few minutes, the lantern began to come toward us. Suddenly, as we watched, it disappeared. We decided to go ahead, and had walked about five minutes when we heard a freight-train coming over the tracks on which we were walking.

"We were on a trestle over a short culvert and to save ourselves from being run over, jumped down into it. We lit on top of those switchmen, and for about ten minutes there was the liveliest fight you ever heard of. We had the advantage of being uppermost, however, and after a time managed to get handcuffs on them. Then all of a sudden it dawned on me what had happened.

The Capture.

"We found their lantern and lighted it and I sent Johnson tearing up the tracks to stop any train that might be coming down. He held up the mail train from Cleveland and I came along later with the two prisoners. About 300 feet from where he stopped the train, we found a section of track taken out. On the way back the two men confessed to us that they and two others, whom we will get to-morrow, had caused all the wrecks."

The proprietor of "Martin's Speak-Easy" was Allan Pinkerton, and his capture of the train wreckers marked the beginning of his



"HE QUARRELED WITH THE CONDUCTOR OVER PAYING HIS FARE."

connection with the Lake Shore road; a connection which lasted off and on throughout his lifetime. Whenever anything came up in the course of the administration of the road which needed investigation, the general manager would call on him, and he came finally to have an annual contract with the company under a sort of roving commission to find out anything he could that it was desirable the general manager should know. It was not so easy as it looked.

One of his most useful fields was in running down dishonest conductors, who, with the elementary ticket system then in force, were often a real menace to the prosperity of the road. Whenever he had nothing else to do he would drop into the general manager's office and say:

"I guess I'll take a run over the line for a day or two. You may get some messages from me."

Sure enough they would begin to come in within a few hours.

"Conductor No. 763 is knocking down fares. Brakeman No. 266 is insolent to passengers. Engineer of train No. 6 doesn't

whistle at crossings," and so on until he returned to Chicago.

Tricking the General Manager.

These excursions were veritable pleasure trips to Pinkerton, and he once told the general manager that the reason he liked them was because they gave him an opportunity to practise his disguises. The general manager had read Eugène Sue and the great "Lecocq" stories, but like most Americans he was skep-

Chicago and the general manager was walking down the platform, when the countryman seized him by the arm.

"If you don't mind I'll call for that dinner after I've changed my clothes," he said.

The surprising thing about it was that Pinkerton's only disguise consisted in his rough clothes and in the accent he had assumed to change his voice. He also had long straight hair which with practise he had learned to arrange so as to completely change the expression of his face. He never used false beards or articles of that kind. After his experience on the train, the general manager met him many times when he didn't recognize him until Pinkerton introduced himself.

Scenting a Clue.

The general manager had many long talks with Pinkerton in the course of their acquaintance in which the great detective told him of his methods of solving cases on which he was employed.

"My first rule," he said, "is to determine what person has the greatest motive for committing the crime. Having decided on that it is generally a very simple matter to gather sufficient evidence to convict the offender."

In illustration of this Pinkerton told of a bank robbery in a small town near Chicago which he solved months after the police had abandoned the case.

"I never pay much attention to a case of that sort while the excitement over the discovery of the crime is at its height," he said.

"It is much better to wait until the police have let it drop. Then the criminals begin to feel safe and relax their precautions."

"In the case in point, the cashier of a small bank in Springfield, Illinois, opened the bank vault one morning to find that it had been robbed during the night of every cent it contained. The locks had not been tampered with and there was absolutely nothing to explain how the thieves had entered the place. The police arrested the cashier as he and the president were the only persons who had the combination of the vault. His innocence was clearly established, however, and the case was at a standstill when I was called in.

First Impressions.

"I spent weeks in Springfield getting acquainted with the people in the town without letting who I was become known. My favorite plan was to pose as a life-insurance agent, as that gave me an excuse for asking questions



DIDN'T RECOGNIZE HIM UNTIL PINKERTON
INTRODUCED HIMSELF.

tical of tales of that sort. It was this skepticism which led him to bet Pinkerton a dinner one day that he could not disguise himself so that he wouldn't know him.

Two or three days after this conversation, a countryman in high, rawhide boots, with his trousers tucked into the tops, wearing a wide brimmed felt hat and a red bandanna handkerchief around his neck, sat down in the seat beside the general manager as the latter was coming to town from his country home in the suburbs of Chicago. The countryman's manner was most offensive. He quarreled with the conductor over paying his fare and crowded the general manager so that he remonstrated with him. The train had reached

about those in the place without arousing suspicion. There is a good deal of intuition in my work, and it was that as much as anything else that led me to look up the record of a grocer who had a small shop diagonally across from the bank.

"I learned that he was regarded by his neighbors as a shiftless sort, and some of the wholesale merchants with whom he dealt in Chicago said he was very poor pay. I scraped up an acquaintance with him and found he had advertised his business for sale. There was nothing very suggestive about all this, and yet, whenever I pondered on the case, that grocer would bob up in my mind. I didn't like his looks in general, and he didn't have the air of a grocer. Furthermore, I soon learned that he knew very little about the details of the grocery business.

"I had made friends with the wife of a man who kept a notion store next to the grocery, and I played on her jealousy by praising in an off-hand way the appearance of the grocer's wife.

Aided by a Woman.

"Well,' my gossip snapped out, 'all I've got to say is she doesn't meet my notions of an honest woman. None of the rest of us round here have money enough to go to Chicago every week, and she doesn't wear the same clothes she does at home when she goes, either. You wouldn't know her as she goes traipsin' off to the station.'

"This was news to me, for I thought I had studied the family pretty closely. It only goes to show that women are keener observers than men, when it comes to the little things. The next time I came near the grocery store I was dressed in a way which I knew would disguise me, and I shadowed the house until early one morning I saw Mrs. Grocer leave for the station. She was stylishly gowned, and, as the wife of the other storekeeper had said, you would hardly have recognized her. I followed her, and we took the train for Chicago together. She went straight to a bank on leaving the station there, and deposited a large sum of money.

"In the course of the day she visited four banks, and made deposits in each one. I let her go back to Springfield without molesting her, but I knew the minute I saw her enter the first bank that I was on the right track. When she returned to Springfield, two of my men went with her, and my orders were that they should watch the couple day and night, and arrest them if they started to leave

town together, unless I gave them orders to the contrary.

"I then had another agent visit the grocer in Springfield and represent himself as a purchaser of his store. My object was to get the suspect and his wife out of Springfield for a day, so that I could have a clear field to go through their store. My agent arranged with the man and his wife to meet him in Chicago the next day, to sign the necessary deeds for the transfer of the property.

Closing In.

"As soon as my other men notified me that the coast was clear I broke into the store by a rear window and began my search. Everything in the place convinced me that the store was merely a blind to cover the man's real aims. The stock was small and evidently had been selected by a person who knew nothing about the business. I spent four hours in going over the store and living-rooms, however, without discovering the smallest thing to bear out my suspicions.

"Finally I went out into the back-yard, a small plot of ground surrounded on three sides by a high board-fence. There was nothing there to excite remark, and I had turned on my heel to reenter the shop, when, as I stepped on the stone flag put at the bottom of the steps, it tilted somewhat, and, glancing downward, I noticed that there was apparently a hole under it. I stooped over and found that the stone pulled out with little difficulty. Beneath it was a square hole, and leading from it a tunnel large enough for a man to crawl through with ease on his hands and knees.

The Hidden Passage.

"I got a candle from the store, and started to explore the passageway. Incidentally it was the hardest trip I ever took. The tunnel was at least 500 feet long, and I was thoroughly tired out when I reached a square hole at the end. Here a beam had been put upright, supporting a stone flagging at the top.

"I removed the beam, and pushed with all my might on the stone. After a time it gave way, and I climbed through the hole. My candle had gone out while I worked at the stone. Climbing to my feet after crawling through the opening, I relit my candle, and by its light saw that I was in the vault of the bank.

"The thing was so simple that it fairly

took my breath away. The vault was built with heavy brick walls on three sides and on the roof. This was lined with rolled sheet steel. The floor was of cement, with a coating of sheet steel over that.

"The bank officials, however, had foolishly put a layer of oil-cloth on the floor of the vault, and this had concealed the hole which the thief had drilled through the cement and the sheeting of the floor. Strange as it seems, neither the police nor I had thought to lift that piece of oilcloth. It was a lesson to me which I have never forgotten. After I had replaced the slab of cement over the hole and put back the beam supporting it, I crawled back through the tunnel to the grocery store, and waited there for the proprietor to return.

A Confession.

"When he came back we put him and his wife under arrest, and after showing them that I had discovered the tunnel, and that we knew where he had deposited his stealings, I asked him how long it had taken him to dig the tunnel. Seeing that the game was up, he acknowledged that he and his wife had been at work on the bore for six months. They had only been able to work at night for fear of arousing the suspicions of the neighbors. He had dug the tunnel with a small coal-shovel, taking the earth out in a bushel basket. They had spread this in layers over the back yard.

"The grocer turned out to be a man named Arthur Clapp, a crook well known to the police of New York and several of the large Eastern cities. It had become too hot for him to work in the East any longer, so he had taken the proceeds of his last robbery to buy the grocery store and stock necessary for his plot in Springfield. In all it had taken him a year to consummate the robbery, and he had planned, so he said, to retire, and live honestly."

Pinkerton was engaged by the Lake Shore Railroad to solve two train-wrecks later, in which romance played a most unusual part. At intervals of three months, two fast trains on the main line were ditched a short distance below a small way-station. There was absolutely nothing to show what had caused them. The track, except for some crushed ties, where the wheels of the trains had struck them in going off the rails, were in perfect condition, and an examination after the wrecks showed that there was nothing the matter with the trucks on either of the locomotives or the cars.

After the railroad officials had gone over all the evidence, Pinkerton was called in. He carefully investigated the circumstances of the first accident, but was unable to reach any conclusion. Then came the second disaster and a week's careful probing brought no results. He was talking to the general manager about the case one morning when a thought suddenly struck him.

"By Jove!" he said, "I believe I know who wrecked those trains."

"Who was it?" the general manager asked.

"The station-agent," he replied.

"Why we sent that fellow a letter of commendation for his good work at both those accidents," the general manager said. "He worked like a Trojan, day and night, while we were clearing away the wreck and showed that he had keen intelligence."

"I can't help it," Pinkerton said, "that's the only man that could have done it, and I'm going to look into it."

"Go ahead," the general manager said, "but I think you're on the wrong track."

Pinkerton went out to the little town where the station-agent was employed, and after his usual custom spent many days in getting acquainted with the people in the place. He didn't go near the station-agent, but he soon found that the latter was paying marked attention to the daughter of a well-to-do farmer, who lived on the outskirts of the place. Pinkerton made an excuse for getting to know the farmer, and stuck to it until he had been invited to his house for dinner.

A Woman in the Case.

There he met the daughter, and he found her to be the ordinary type of village flirt, dressed in cheap finery and with an exalted notion of her own charms. He seized a favorable opportunity to get her to discuss her many conquests, and soon found that the two principal suitors for her hand were the station-agent and a man who had been a soldier in the Civil War and had all the advantage that came of a romantic career in the army.

The war at that time was fresh in every one's mind and any man who could lay claim to war service was a hero in the community. The young woman, in a burst of confidence, admitted to Pinkerton, who had assumed all along an air of brotherly interest in her affairs, that she was divided in her own mind which of the two to take.

She admitted, though, that her feelings

for the station-agent had become warmer since his gallant work in rescuing the injured and dying from the two bad wrecks which had recently stirred the countryside. She produced, on Pinkerton's expressing an interest in the accidents, newspaper clippings telling of the station-agent's heroic work, and Pinkerton agreed with her that it showed the young man had lots of grit and courage.

Pinkerton had absolutely no definite evidence against the agent, but he decided to try a bluff. He went down to the station the day after his conversation with the girl and walked boldly into the office where the agent was at work at his telegraph key.

"You can't come in here," the agent said angrily. "The public is supposed to stay on the outside. This office is private."

Pinkerton very deliberately took off his hat, put it down on the table and sat down in the only other vacant chair in the little enclosure. Without answering the operator, he sat regarding him steadily for a minute or two, drumming with his fingers on the arm of his chair. He could see that the agent was nervous under his scrutiny.

"I thought I told you to get out of here?" the agent said again with a manner intended to be domineering, but which had a quaver of uncertainty back of it which was not lost on the detective.

Pinkerton continued to eye the man steadily and the agent became plainly more and more ill at ease. Finally, in a very quiet tone, Pinkerton said:

The Bluff That Worked.

"I'm a detective in the employ of the Lake Shore Railroad. I've come to arrest you for wrecking those two trains. I know why you did it and how you did it, and in fact all about it. You might just as well own up and take your medicine. It will be better for you in the end."

The agent's knees gave way under him and he sank back into his chair.

"How do you know I did it?" he asked weakly.

"Listen to me," Pinkerton said in an ordinary conversational tone as he drew his chair closer to that of the operator.

"You are in love with Miss Smith—don't deny it," he interposed hastily as the agent started to object. "I know all about it. We've talked about you and she says she likes you. She says she thinks you're a fine young man, and she's particularly proud of the



"THE HARDEST TRIP I
EVER TOOK."

work you did in saving the wounded from those trains. In fact, she thinks you're a hero.

"I've been in love myself, and I know how hard it is for a man to sit still and see some one else win the girl he wants himself. You knew Miss Smith favored that soldier, and you wanted to do something that would make you appear to advantage in her eyes as well as to gain the good-will of your employers. I guess you see your mistake now, but it's too late, and I guess you'll have to come with me."

Pinkerton's tone and manner was so sympathetic, albeit perfectly positive, that the agent gave way. He sat silently for a moment, his eyes fixed in a vacant stare, and then suddenly threw his head forward on his arms and sobbed like a child. Pinkerton didn't interrupt him, but waited patiently until the man's nerves steadied. Finally the agent sat up.

"I'm glad it's over," he said. "I couldn't have stood the strain of the last few months any longer. I haven't been able to sleep, and I think I should have killed myself soon, if you hadn't caught me."



HE SEIZED A FAVORABLE OPPORTUNITY TO GET HER TO DISCUSS HER MANY CONQUESTS.

On the way to the jail in Chicago the agent confirmed Pinkerton's theory as to why he caused the wrecks, and told him how he did it.

After making up his mind that in order to win the girl he must do something striking to win promotion and find favor in her eyes, he thought that if he could flag a fast train in the nick of time and gain credit for heroism

it would accomplish his purpose. Accordingly, he took a crowbar one night and went to a deep cut on the line about half a mile from his station. There had been a series of heavy spring freshets in the previous week, and he thought that they would lend color to his plan. He pried loose a heavy boulder and sent it rolling down the bank to the track. Then he took his lantern and went up the track, intending to flag the train. To his horror, although he waved the flag frantically, neither the engineer nor the fireman saw it. He dashed the lantern into the cab as the engine passed him, but still the train tore along at full speed, and hit the boulder lying a hundred feet beyond. The force of the impact was so great that it lifted the boulder clear off the tracks, and that is why no explanation could be found for the wreck.

Horried at what he had done, the station-agent ran down the tracks to the scene of the wreck, genuinely anxious to do everything in his power to aid those for whose injuries he was responsible. He worked like a maniac, and it was his unusual zeal which attracted the officials of the road. The newspapers heard of his effort, and the reporters, always anxious for a "feature," made him the hero of the day. This blinded him to the enormity of his crime, and made him thirst for still more glory. Therefore, with the praises of every one sounding in his ears, he decided to

try the same thing again.

This time he decided to put a steel wedge on the track, and so hardened had his first immunity made him that he apparently gave up any idea of stopping the train before it was wrecked. Twelve people were killed in this accident. The station-agent was subsequently hanged.

RAILROAD FISH PLANTING.

THE Lehigh Valley Railroad is helping the fish commissioners of New York and Pennsylvania stock the streams in these two States with fish. The Pennsylvania commissioner, W. E. Meehan, has sent out 300 cans of trout fry, from the Harrisburg hatcheries, for planting along the line.

The company is also cooperating with the New York commissioner in his efforts to stock the up-

State streams with trout and bass. A corps of trained attendants accompanies each consignment of fish, to see that they are fed at regular intervals and planted scientifically. Every effort is made to transport them with the least possible delay.

The company arranges with outing clubs and individuals to be on hand when the fish arrive, so no time will be lost in getting them to the water.

The Best-Tailored Individual On the Line.

BY ROBERT FULKERSON HOFFMAN.

SOMEWHERE in every large railroad station, if you keep your eyes wide open, you will discover this well-dressed individual whose clothes are cut to fit with a precision and nicety that is seldom to be found in the best tailor-shops, and which have a dash and swagger that could never be obtained in the most expensive ready-mades.

Frequently several of these immaculate individuals, who dress very much alike, may be seen ready to make their departure from a big terminal, as they are great travelers and are always on the rail.

No, they are not knights of the grip, bankers, railroad presidents, or globe-trotters. Once you see them you will be sure to know them by the traveling-jackets, which they always wear, and by the simple pattern from which their garb is made. And they are quite fashionable.

Just Try a Few Guesses, and Once on the Track, the Solution of the
Mystery Will Soon Strike Your Mental
Solar Plexus.

IN this day of robust prices, of exact niceties of dress, and of other things that have their useful parts in helping us to forget that long, long ago, when we crept stealthily out of a cavern and, cudgel in hand, procured a new suit of fox-pelt at first hand where it grew, how would you like to pay about two hundred and fifteen dollars for a suit of clothes?

This question, of course, has nothing to do with that gender of mysterious apparel, fearfully and wonderfully made, which far passeth the understanding of men. It is a man's problem, solely, and it does not contemplate the inclusion of a silk hat, silk-lined swallow-tailed coat, low-cut waistcoat, and patent-leather pumps. It has to do only with a very good, very plain, very nicely fitted business or working suit, of which you may have seen many and never known their value.

We may yet, however, have to include some-

thing of the feminine in this consideration, even at the risk of making our two-hundred and-fifteen-dollar outfit seem cheap by comparison with some Parisian creation of the gentler sort, which might loom large before the mental eye of a reader who does not rejoice in bifurcated serge or blue jeans.

At any rate, if you were standing in any one of the great railroad terminals, say the Union Station in Boston, the Grand Central in New York, the Rock Island in Chicago, or the Union Terminal in St. Louis, and the man who knew should ask of you, "Which is the best-dressed individual in this throng?" you would be apt to gaze at him in some surprise, you might even look around at the kaleidoscopic throngs about you, and then give up promptly, as to the answering. Very probably, unless you knew your questioner well, you would edge away from him as politely and as expeditiously as possible.

But if your questioner should be given op-

portunity to answer his own question correctly, he would say merely, "There she stands!" and so introduce the only element of femininity with which this has to do, and as much of individuality as the occasion will permit, by pointing out the big Pacific-type locomotive, standing at the head of your train in the big shed, ready to start you across the continent, or to where you will.

The Glad Rags of a Locomotive.

If, following that answer, your questioner should further ask, "What color is a locomotive?" you might feel so sure that you knew the answer, as to allow yourself a certain measure of disdain for so plain a query. From the nature of his questions, whether you happened to be of the railroad fraternity or not, it would be clear to you that your friend the questioner was either of that keen-witted brotherhood, or close of kin to it, and that he probably had some clear method in his apparent drollery. Let us see:

Once more back to the long ago, to the time of the primitive engine "Hero," which will be eminently safe ground as to time. Then a locomotive ran naked in the elements, with not even a freshly drawn fox-pelt with which to cover itself.

Later, it was found advisable to provide some sort of protection for them—raiment, clothing, a "jacket," in the language of the initiated. First, so far as we know, this was a crude sheathing of wood, which did very well with low steam pressures and correspondingly low resultant temperatures.

Evolution of an Engine's Jacket.

Then, with regard for appearances as well as for durability, a sheathing of iron was added. Still later, a heavy blanket of hair-felt was first laid closely upon the exterior of the locomotive boiler. Over this was carefully coopered a close-fitting suit of smooth pine boards held tightly in place by thin and narrow hoops of iron, and, outside of this and smoothly encasing the whole, a jacket of thin sheet-brass, or of sheet-iron, with broad bands of thin brass, was fitted and drawn tightly to place.

Still later, it was found that the hair-felt in a short time charred to dust in the great heat of the boiler, and that the pine boards charred almost as badly and sometimes caught fire and burned fiercely under the iron jacket, while the locomotive fanned the flames with its speed. All this was expensive, short-lived,

exceedingly troublesome, and sometimes dangerous, due to the blinding of the engineer by smoke while running fast.

Out of all these former glad rags, was evolved the trim and simple double suit that clothes the locomotive of to-day, namely: a complete suit of snowy-white magnesia-asbestos board about one inch thick, sometimes thicker, cleated closely upon its russet-red shell of steel. Over that, a plain and beautifully simple jacket of planished steel of the familiar blue-gray that flashes by at the head of every swift-flying limited, or plods patiently along at front end of every heavy-laden freight train, is placed with a skill which requires the apt calculations of a man well versed in mathematics and even geometry, and necessitates as deft a cutting and fitting as that of any tailor.

What the Wardrobe Costs.

This suit, as we have elected to call it, for an up-to-date Pacific-type passenger locomotive of a proper size to carry cylinders having a twenty-two-inch diameter and a twenty-eight-inch stroke, costs, as we have noted, two hundred and fifteen dollars, approximately, and that cost is made up as follows:

Magnesia-asbestos board	\$78
Labor, fitting, and applying.....	27
Planished-steel jacket	55
Labor, cutting, and fitting, labor applying planished jacket to engine.....	55

Total cost, labor and material, one engine.. \$215

That is to say, of the total purchase price of a locomotive such as we are considering, costing from \$12,000 to \$15,000, approximately 1½ per cent is paid for its mere outward clothing. Why?

Manufacturers of railroad rolling-stock are not more given than other manufacturers to the outlay of money solely for appearance or sentiment, even though a certain sentiment for locomotives—almost equal to a personal liking—exists in the minds of most railroad men. The reason, then, for this very considerable outlay, not far to seek and familiar to most of us, must be practical and of a definite value in its application. Reduced to its plainest terms, it is this:

Why an Engine Needs Coverings.

A locomotive stripped of its jacket and lagging, running nakedly in the out of doors upon its customary schedule, would suffer

the same physical loss as a man denuded of his clothing, although not, of course, in just the same manner of detail. But, in case both were thus exposed and both could survive the exposure, proceeding about their allotted tasks, the net result would be in large measure the same: an extravagant loss of energy.

This fact was early recognized, and, as we have seen, in some measure provided for in locomotive practise. Yet, a superficial view of practise which requires the expenditure of approximately one dollar and a half out of every one hundred dollars invested in the purchase of the superb locomotive of to-day, ranging into thousands of dollars of total first cost, would seem to mark the first-named sum as a disproportionate and extravagant sum to be set aside for the mere outward clothing of a high-power machine.

That conclusion, however, would be very far from the fact. The jacket, in an impassive way and rated by its first cost, is one of the most important dividend-earners on any locomotive and, in fact, upon any railroad.

We are aware that that is a pretty broad statement, but it is also a statement which will bear analysis.

Comparative Tests.

In 1897 or 1898, or perhaps a little earlier, some tests were planned and made on the Chicago and Northwestern Railroad, at Chicago, with a locomotive properly lagged and jacketed, and again with the same locomotive, under conditions as nearly similar as could be obtained for working the locomotive while it was stripped bare of lagging and jacket. The net result, as we recall it, was a clear saving of 26 per cent of coal used by the naked engine as compared with that used by the jacketed engine.

These tests, as reported at the time, were made with the locomotive running regularly upon the road, and also while it was at rest at the West Fortieth Street shop-yards, thus giving the means of checking up results and confirming the value of figures obtained.

That the above mentioned percentage of gain, which is quoted from memory, and which is open to confirmation or correction by any of our Northwestern friends who may chance to see this article, was safely conservative and wholly within the facts, there can be no doubt. The writer, while employed as mechanical engineer of the Atchison, Topeka and Santa Fe Railway, in

1899, had opportunity to confirm this on a somewhat larger, although fairly parallel, scale.

There were on the Santa Fe system at that time three timber-preserving plants, having a total of eleven large cylinders for the reception and treatment of timber. The plant at Somerville, Texas, had six cylinders; Belmont, Arizona, had two, and Las Vegas, New Mexico, three. From this distribution it will be apparent that the train-haul of fuel from any available source was long, to some of the plants, and the fuel cost correspondingly high.

The Writer's Experience.

This, with the large dimensions of the cylinders, the long periods of maintaining steam pressure in them during the cooking process, and the fact that up to that time all of these cylinders were worked with no covering whatever except the plain board buildings in which they were installed, had attracted attention to the fuel-bills and the advisability of lagging the preserving cylinders.

Looking to that end, the writer mapped out and made a test of one of the cylinders under conditions which were peculiarly well adapted to the obtaining of reliable data on the money value of good heat insulation.

The preserving cylinders at the Las Vegas plant were of steel, nine-sixteenths of an inch thick, having an outside diameter of about six feet and a length over all of close to 112 feet.

To cover one cylinder, therefore, not including the cast-iron hinged door at the head end, which was impracticable at that time because of a massive and somewhat complicated screw-clamp used for locking, required over 2,000 square feet of magnesia-asbestos lagging.

The preserving process regularly employed involved, briefly, the running of a narrow-gage train load of timber into the cylinder, on suitable small trucks; sealing the door of the cylinder; cooking the timber for some hours under the pressure of live steam turned in from an adjacent stationary boiler plant; pumping a very low vacuum; turning in the treating solution (not heated), and, after thorough saturation to the desired depth was assured, returning the treating solution by gravity to its tank.

From this it will be seen that there was an alternate chilling and heating of the great expanse of cylinder steel to be accomplished, in addition to the heavy loss by radiation

while the cylinder was under steam pressure in the big up-and-down board building which housed that part of the plant rather loosely.

One of the two boilers in the stationary battery was shut off from all connection with its fellow, in preparation for the test, and all other connections of the plant were shut off except direct connections of this boiler and the heavy vacuum pump as they were related to preserving cylinder No. 1. The inspirator for the boiler was fed from a temporary tank standing upon a platform scale, thus giving a record by weight of all water fed to the boiler.

Coal fired during the test was carefully weighed and skilfully used. The duty of the vacuum pump being the same for each division of the test, the steam used for the pump was set aside as nil. All other water weighed in through the inspirator therefore represented the amount condensed in the preserving cylinder, as will appear.

On October 23, the test of preserving cylinder No. 1, naked, was made. The cylinder was sealed, left empty to avoid the factor of green or seasoned timber, and a vacuum of twenty-one and one-half inches of mercury was produced in it. From the stationary boiler carrying constantly two gages of water and a steam pressure of one hundred and thirty pounds, steam was throttled into the preserving cylinder by John A. McLearn, and maintained at a constant average pressure of about twenty-two pounds per square inch, for a period of five hours. A pressure-recording gage gave a definite and graphic record of the pressure maintained.

Between October 24 and October 29, this No. 1 cylinder was carefully lagged with a coat of magnesia-asbestos board, and, on the latter date, the first test was duplicated in every particular. The results are tabulated for convenient comparison, below:

	Oct. 23.	Oct. 29.
	Cyl. bare.	Cyl. lagged.
Outside temp. atmos. (av.)...	64.2°	64.1°
Temp. cyl.-house (av.).....	119.7°	81°
Extreme temp. cyl.-house..	133°	88°
Temp. feed-water (av.)....	55.6°	55.6°
Water fed to boiler, lbs....	8202.26	6061.02
Gallons....	976.46	721.55
Coal fired to boiler, lbs....	1269	774

On both occasions: Weather clear; swirling wind of approximately fifteen miles per hour.

Coal: Blossburg, New Mexico, bituminous run of mine, good quality.

To bring about the change of operation shown, had cost \$373.40 for labor and material in lagging the first cylinder experimentally. From that experience with common stock of lagging material, it was estimated that the labor cost for lagging other cylinders with more suitable sizes of board could be reduced to \$25.00 per cylinder, bringing the total cost of lagging one cylinder down to \$283.60.

How Coal Is Saved.

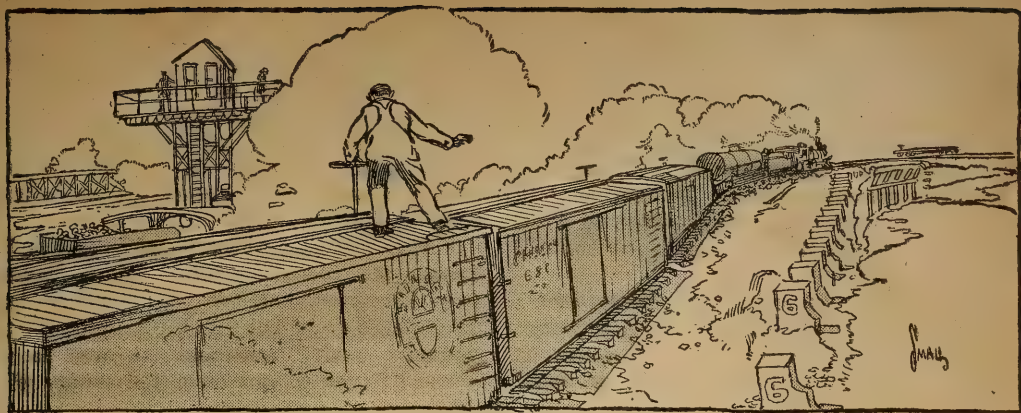
The cost of coal used at the Las Vegas plant for three cylinders, for a period of seven months preceding that time, was, by invoice, \$1,142.66; and applying the same ratio to the total of eleven cylinders for the whole system (the coal cost at Belmont and Somerville was higher, however), the saving of 39 per cent of coal, as shown by the figures for the Las Vegas test, made the way clear to the saving of \$1,633.97 in each lapse of seven months by the single outlay of \$4,189.68, to lag the eleven cylinders, at the labor and material prices then ruling.

All of which brings us through and well out of the dry-as-dust statistics and to where the man of the cloth would point his moral, or the logician append his corollary. Probably it will serve our need as well, however, to call it simply the point, and that is:

Lag and jacket boilers, cylinders, and every other radiating and exposed part that is accessible as carefully as you would clothe your body, and keep them lagged. Every piece of boiler-covering that is removed and not replaced in hasty repairs; every cylinder-head or steam-chest that is stripped and sent out with only its steel casing to cover it; every naked steam-pipe or dome-cap is draining away power as really as though each one of them dripped hot water upon the right-of-way.

This bald fact, familiar to most of us and by most of us too often forgotten, is the key to the reason why a locomotive is russet-red, snowy-white, and blue-gray in color; why it is so carefully tailored; and why it is the best-dressed individual in any station throng.

Good luck loves a clear fire. Do your share.—Reflections of an Engineer.



WHEN THE BOOMER BEAT IT.

BY W. H. WILCOX.

The Candidate for the Booby-Hatch Had Him On the Run, But at the End of the Chase, Positions Changed.

THE once immaculate McCarty was a sight to behold. Huge rents ventilated each leg of his overalls, which were held in place by a safety-pin and a tenpenny nail, in lieu of the customary buttons. The general color scheme of both overalls and jumper, which had originally been blue, was now a sadly mottled combination of black and brown, with here and there a trace of the basic hue still struggling for existence, but waging a losing battle against the legions of coal-dust, oil, and grease, which were gradually lending a shiny, enamel-like surface to the cloth.

Formerly the word cleanliness had been symbolical of McCarty in the minds of all the men on the division. But that was before Mrs. McCarty had departed on a three months' trip to the old country. Unfortunately, she seemed to have taken all her worthy spouse's love for neatness along with her, and a sad and steady disintegration of McCarty's immaculacy had set in.

It is not to be wondered at, then, that the boomer stared in open-mouthed astonishment at the representative of rags and dirt that joined the other men beneath the water-tank.

For three months the boomer had been isolated on the work-train at West Farms, a

small hamlet, with a population, as he expressed it, of one, Lizzie, her mama, two oxen, six hens, a million sand-fleas, and a hired man. Before he had departed to rusticate in the West Farms sand-pit, McCarty had undoubtedly been the cleanest fireman on the system.

"Holy smoke," said the boomer, "what has happened to McCarty?"

When the old cat's away,
All the mice they will play.

"It looks like a big night to-night," sang Cyclone Brown.

"Oh, that's it, is it? Mrs. McCarty's away and Mac's runnin' wild."

"Yes, and ain't he an awful-looking animal to be holdin' down the left side of the Nutmeg Limited!" observed old Pop Morgan.

"Aw, if yer don't like m'looks, yer needn't look at me. There ain't anything in the book says yer have ter keep yer eyes glued on the fireman."

"I knew the book of rules before you was hatched, McCarty, but I still say you're an awful-lookin' object to be sharin' the cab with a respectable-lookin' man like me. You're enough to drive a man to the insane asylum."

"Yer ought to be down in Middletown, anyway," retorted McCarty. "You're about as near bughouse as any one I know."

"Speaking of crazy people," observed the boomer, "reminds me of an experience I had when I was firin' on the D. and M."

"Holy gee!" ejaculated Punk Riley, "the boomer's dreamin' again. I'll bet he told fairy tales to the sand-fleas down to West Farms. His trip to the gravel-pit didn't do him any good."

"I want you to understand, Riley, that I don't tell any pipe-dreams. Whatever stories I relate are true happenin's. However, if you don't want to listen to 'em, you needn't," and he arose in offended dignity.

"Hold on, boomer," said Chub Eddy, grabbing the boomer's coat-tails and pulling him back onto the bench.

"Tell us your experience with the crazy man. We'll keep that empty head quiet or throw him in the Connecticut. Won't we, fellers?" he asked, turning to his immediate followers, whereupon such a unanimous shout of assent issued from those worthies that Riley sat up in sudden apprehension.

On being assured that Punk's sole hope of escaping the chilly waters of the river lay in his absolute silence, the boomer began:

"Well, you see, I was working spare out of Barton. One night, Carter, the fellow firing the Willington scoot, sprained his ankle going home from the roundhouse, and they sent me to dead-head up there and cover his run in the morning. The call-boy didn't come after me until nearly eleven o'clock, and by the time I got over to the engine-house and secured my overalls, the last passenger-train had gone, so I fixed it up with Slicky Maynard, who pulled the night freight, to slow down at Willington and let me off.

"Everything went along as smooth as grease till I struck that lonesome, one-horse village. 'Huh,' says I, after droppin' off 273's back, 'I'm sure some glad I don't live in this dead-and-buried place. A fellow of my disposition would die of monotony here.' But it wasn't goin' to be any monotonous that night. Not on your life, though I didn't know it when I was grumblin' to myself, of course.

"I hikes over to the operator's shanty, a little eight-by-ten shack, full of levers, with barely room for a chair and operatin'-table.

"Say, Hank," says I, rudely awakenin' the key manipulator, 'stop dreamin' about your country Susan, and tell a guy where he can get a bed in this here one-horse burg.'

"'How'n thunder d'you 'spose I know?' says he. 'You big, lopsided coal-heaver, I ain't no more rube than you are. I live in Barton, and come up on 178 every night.'

"'A thousand apologies,' says I. 'I thought you were a resident of this here place, though I might 'a' known by your looks you never were hatched in no such cemetery as this.'

"That mollified him somewhat, and he informed me that there was a widow woman lived back of the station who took boarders. In the absence of any hotel, it was me for the widder's, and I hot-footed it over to the house he pointed out from the shanty window.

"After makin' a noise like a full-grown boiler-works, or a kid's dishpan brigade, on the front door for about half an hour, I finally succeeded in awakenin' the guardian of the place in the shape of a Boston bull-terrier. He came gallopin' around the corner, lookin' in the moonlight as big as a sheep, and displayin' a row of teeth like so many rail-spikes.

"I didn't stop for closer acquaintance. Oh, no!

"'Good-by, widder,' says I, and I beats it for the road. Fortunately for me, there was a picket fence around the house, and I am a good jumper. I took that wooden separator in just one leap; and I was none too previous, either, for doggie was comin' so close to my heels he couldn't stop when he put the brakes on, and he bumped his dear little nose against the pickets.

"That didn't seem to please him any, judgin' from the racket he started. He was just in the middle of his third or fourth series of yelps, and I was standin' across the road, tellin' him what I thought of him and any one who would keep his likes around, when the window over the front-door opened, and a high-pressure, narrow-gage sort of a female, in a red flannel nightgown and a head full of newspaper clippin's, appeared in the openin'.

"'If you don't stop that awful language,' says she, 'I'll telephone for Sheriff Jones. You ought to be ashamed of yourself. If I used such talk, I'd be afraid the Lord would strike me dead in my tracks.'

"You see, I'd skinned my shins getting over the fence, and I guess my conversation wa'n't any too genteel.

"'Madam,' says I, 'if you don't like railroad talk, you hadn't ought to live near the track.'

"She started in on a thorough dissection of

the morals of any man that would use profanity, but I didn't stop to hear her. Doggie had found a place where there was a loose picket, and was struggling hard to get through. He already had his front feet on my side of the fence, and was stuck in the middle, but squirming so that it looked at any minute as though his caboose might follow, so I pegged a rock at him and retreated to the operator's shanty.

"What's the matter, Bill?" asks the op the minute I poked my head through the door.

"Why, you red-headed, biscuit-faced dope. I got a good mind to put a dent in your empty skull with this dinner-bucket," says I. "Why didn't you tell me there was a small-sized elephant over there?"

"To tell you the truth," says he, "I forgot the dog."

"Well, this ain't gettin' me any bed. Do you know any other place here where they take boarders, and don't keep any canines around?"

"No," says he. "Guess you will have to sleep in the coaches to-night."

"Guess again, Rosy," said I. "You're about as handy at guessin' as a cow with a musket. Must be you want me to freeze to death. I'd look nice, wouldn't I? The last of November, no steam on those coaches, and little Willie bein' slowly refrigerated. Nay, Pauline! I guess I can manage to get a few hours' sleep on the roof of the cab. It's warm in the engine-house, anyway." I seized my dinner-pail and started for the door.

"Look out for the watchman there," called the op after me. "He's been in the bug-house at Tewksbury for the last year, and though they have pronounced him cured, he still acts rather queer, and is liable to break out again any time."

"Tell that pipe-dream to the despatcher," says I, thinkin' he was tryin' to kid me.

"I hiked over to the roundhouse, hunted up a bundle of waste for a pillow, and crawled up on the roof of the 248. Looked all around the house and made racket enough for a dozen men, but no sign of the watchman did I see.

"I don't know how long I slept. Maybe a half an hour, perhaps, three-quarters, but when I did wake up it was some sudden, and with a sense of something wrong. There was something wrong, too. About the first thing my eyes lighted on was the watchman comin' up over the runnin'-board with an ax in his hand.

"His head was just on a level with the

cab-roof, and the light from one of the house-lamps shone full on his face. One look was enough to tell me he had gone plumb crazy again. Of all the devilish expressions I ever saw, his was certainly the capper.

"You can bet it wasn't more than the sixteenth part of a second before I was on my way over the coal-pile for the back of the tank, and I didn't linger none in gettin' off that tender either.

"Soon as he saw he was discovered, he let out an unholy shriek, that sent the cold chills racin' up and down my spine by regiments, and took after me. I was goin' a pretty good gait when I left the back of that tank, but when he let out another one of those terrifyin' yells of his, it added about ten miles an hour to my runnin' powers. Round and round the engine-house we went, in a regular indoor Marathon, with me lookin' for a place to get out, and him swingin' that ax, and lettin' out a blood-curdlin' yell every time we passed the 248.

"I surely thought it was all up with me. About the twelfth lap my heart was poundin' like a C. V. compound, both feet weighed about a ton apiece, and there was a funny feelin' across the back of my head, an imaginary line just where I figured the ax would strike.

"What the outcome would have been had nothing interfered with the lunatic's sprintin' powers, I hate to think. Happily for me, though, he slipped on a greasy spot on the concrete floor, and slid into one of the vacant pits. That gave me time while he was scramblin' out to draw the bolt on one of the doors and jump outside.

"But just because I stood outside that engine-house didn't give me any time to waste. No, sir! Mr. Crazy Guy was out of that pit in an instant, and after me the next.

"It was a bright moonlight night, and you could see everything plain as day for two miles. I was too near all in for to attempt a cross-country race with the lunatic and his ax, so I ran around the corner of the engine-house, lookin' for some place to hide, or for a club, so that when the end came, I'd stand some show in the fight I was bound I'd put up.

"I had hardly turned the corner when I ran plumb into a ladder standing up against the side of the house. It reached clear up to the roof, and looked so invitin' that I didn't stop to wonder how it came there, but climbed as fast as I could work my feet. At that, I just stepped off the top rung onto the flat, tarred roof, when Buggy started up from the

bottom. I let him get half-way up and then suddenly turned the ladder over.

"He wasn't lookin' for any more like that, and consequently was shaken off, droppin' pretty hard on the top of an old tank that lay next the wall. For a few minutes he lay there without a move, while I hauled the ladder up on the roof.

"I thought at first he was killed, but for a while I was too nearly winded to try any fancy investigatin' stunts, so I laid down on the roof and watched him over the edge. Soon I noticed his head was almost imperceptibly turning so he could get one eye on me, and I concluded he was playin' 'possum.

"'Not so you'd notice it, Bill,' says I. 'You can play you're dead as long as you want to, but little Willie stays right up here till help arrives.'

"He stayed there a couple of minutes after I said my little piece to him, then all of a sudden jumped up and off the tank, and made for the turntable. He spotted the table opposite the stall where the 248 lay, in which position there was a straight track from the back of that pit, clear across the table over the ash-pit, by the water-plug, out to the switch on the Laurent branch.

"I was wondering what he was up to, when bang! the 248 comes out of the house, takin' the door with her, runs across the table, down the runnin' track, and through the switch out onto the branch. He stopped to clear the switch, got off, lined up the iron, and climbed back into the cab. The next minute the 248 starts up the line toward Salem Junction, gathering speed with every revolution of the drivers, and rippin' the exhausts out of her stack like a Gatlin'-gun.

"I stood there on the roof listenin' to the sound of her steam until it had become almost imperceptible. Then, suddenly, I remembered the Horn freight out of Salem Junction at 3.40, and that if it was on time it would just about meet the lunatic with the light engine in Snake Hollow.

"I didn't lose any more time listenin' for the sound of the 248's exhaust, but dumped my ladder over the edge and slid down the side-pieces. I hardly think my feet touched the ground before I was on my way for the operator's shanty.

"'Call up Salem, and stop the Horn, Bill,' I yelled, bustin' in the door.

"'What for?' he asks, real sleepily, but nevertheless reaching for the instrument.

"'That crazy watchman's got the 248 out on the branch, and is headed for Salem at seventy miles an hour.'

"Click-click-clickety-click-click, he banged away with the key in a regular fever of excitement, while the perspiration started down his face.

"'It's no use,' he says, 'I can't get Salem. There's something the matter with the wire. I'll call up Barton and see if the despatcher can get him by way of Lovell over the Eastern division. He'd hardly cut his main-line instrument, when I thought I heard somethin' comin', and sure enough, when I looked up the branch, through the op's window, there was the 248 comin' back like a whirlwind. You could just see a black spot in the moonlight away up the long piece of straight iron, looming against the snow, but I knew from the pall of black smoke that floated away over the white tops of the trees that it was an engine, and it could only be the 248.

"'When is 34 due here?' I demanded.

"'3.44,' says he.

"'Gimme that red light,' I yells, climbin' over a forest of levers and breakin' for the door.

"'There's no tellin' but what that lunatic will run through the main-line switch, and it's 3.40 right now.'

"'Can't,' bellows the op. 'They put a derail in on the branch yesterday. I only hope he tries it. If he'll get the 248 off here so he can't move her, we'll have a chance to flag the Horn maybe,' all the time poundin' away at his key.

"'Great Scott!' says he, suddenly crumplin' up in his chair.

"'Barton says the Horn left Salem four minutes ago.'

"'Come on,' I yells, 'we got to stop him somehow.'

"'How we goin' to do it?' asks the op. We were already half way to the engine-house switch.

"'If he don't run the signal and go off the derail, he'll have to stop before he gets to it, and we got to jump on the pilot when she goes by and pull the angle-cock open. That will set the brakes on her, and he can't move as long as there is sufficient air in the brake cylinders to keep the brakes on tight.'

"'Luck was with us that night. Had we prearranged every move, the whole business could hardly have passed off more smoothly. The 248 rolled to a stop with the rear of the tank directly opposite the place where we were crouched, every muscle tense and vibrant, awaiting the proper moment for a spring that would land us on the pilot. Of

course all we had to do then was to step over and turn the angle-cock on the back of the tank, and the 248 became as helpless as a dead cow.

"Up on the cab we could hear the lunatic throwin' the lever back and forth, and swearin' cuss words of all colors.

"He'll be down in a minute,' says I, 'and it's up to us to think up some kind of a reception for him when he comes.'

"We were standing close to the section shanty, with its usual pile of scrap-iron to one side.

"The op suddenly sprang over to the heap of odds and ends, and in a jiffy was back with a piece of iron pipe, about three feet long, which he thrust into my hand.

"Stand close up to the edge of the tender,' he says, 'and I'll show myself on that side. When he makes after me you be ready, and the instant he goes by the end of the tank wallop him on the block as hard as you can.'

"All right, oppie,' says I, and the next minute the op was up alongside the cab, spitting out cuss words at Mr. Bug-House.

"I stood close up to the edge of the tank, my pipe upraised, and all ready to put the whole of my hundred and eighty pounds into a blow that would send the lunatic to dreamland, but I was so excited I nearly let the operator have it instead of the watchman. When it did land, it went straight to the mark, and the poor wretch crumpled up like a rag-doll.

"I thought I'd killed him at first, but we found on investigation he was only stunned, so the op went after the bell-rope to tie him with, while I stood over him to administer another piece of persuasion if he came back to life too soon.

"No, sir! I reckon there wasn't anything monotonous about that night," and the boomer paused reminiscently.

"Aw, say," interrupted Punk, "if you'd tell that story to a mule he'd kick your head off."

This remark of Riley's was apparently just what Chub Eddy and his followers were awaiting, for with one accord they arose and fell on his startled Punkship. The squirming, heaving, tangled mass of heads, arms, and legs, presently resolved itself into a group headed for the river, and carrying the futilely struggling Punk in their midst.

"Hey!" ejaculated Windy Sanderson, wiping the perspiration from his face with one hand and keeping the fingers of the other closely clutched in a death-like grip on one of Riley's ankles.

"It's too far to carry this big ox over to the river. Let's tie him to the drain gate under the old plug and drop the lever. The water comes in a rush there, and it'll be just the same as droppin' him in the Connecticut."

A unanimous shout of approval greeted this suggestion, and soon the unfortunate Riley lay atop the drain grating with six gleeful firemen superimposed upon his still struggling but somewhat exhausted anatomy, while a seventh hot-footed it to the engine-house after a piece of bell-rope.

So taken up with Riley and his coming punishment were they, that one and all failed to observe the boomer lift the link off the lever governing the water-valve. Their first indication that anything was amiss with their plans occurred when the eight-inch stream of icy water descended upon their tousled heads.

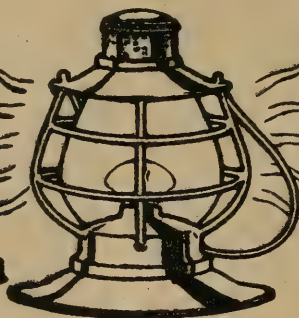
Bewildered, drenched, and gasping for breath, they stumbled and rolled from beneath the watery deluge, in time to see the boomer streaking across the field back of the engine-house to the accompaniment of the cheerful tones of the dinner-bell wielded vigorously by Mother Jones from the door of the boarding-house.

For an instant the boomer paused in the door and surveyed the dripping, watery, profane group lined up along the railroad fence. Then, with a seraphic smile and a hand-flip of derision, he disappeared.



WHAT'S THE ANSWER ?

By the
Light of
the Lantern



Questions
Answered
for
Railroad Men

ASK US!

WE like to be as useful to our readers as we can; but, because of the great popularity of this department, we are forced to impose certain restrictions. It is limited to the answering of questions of an informative, technical, or historical nature only. Letters concerning positions **WILL NOT** be answered in this department. All letters should be signed with the full name of the writer, as an indication of his good faith. We will print only his initials.

WHAT is the best and most concise description of a locomotive which you can quote?

(2) What is meant by the Gooch valve motion?—C. H., Binghamton, New York.

(1) A self-propelled vehicle running on rails for the purpose of hauling cars. It may be operated by steam, electricity, gas from volatile oils, or compressed air. Few compressed-air locomotives have been built, but they resemble steam locomotives in general design and mode of utilizing the exhaustible fluid.

Steam locomotives consist of a boiler and engine mounted on a frame supported on wheels. These wheels are turned by the engine. The boiler contains water, and has a fire-box forming part of it, in which fuel is burned to supply heat to the water and convert it into steam.

The steam passes through a valve called a throttle-valve, thence through pipes to the steam-chests, from which valves, operated by a connection from the main shaft or axle, or from the crank-pin, as in the instance of the Walschaert gear, automatically admit it alternately to each end of the cylinders and exhaust it therefrom into the atmosphere through the exhaust-pipes and stack.

The expansive force of the steam moves the pistons, piston-rods, and crossheads back and forth, and, as the crosshead moves in guides and has one end of the main rod connected to it at the wrist-pin, while the other end of the main rod is connected to the crank-pin on the driving-wheel, the

reciprocating motion of the piston is thereby changed into a rotary motion of the driving-wheels.

A locomotive thus transforms stored-up, or potential, energy of fuel, into the kinetic energy, or mechanical work of propelling itself and hauling cars.

(2) The Gooch is a valve motion, employing two eccentrics, link, link-block, and rocker, very similar to the Stephenson motion, but differing from it in having the link stationary.

On the whole, it greatly resembles the motion used by Thatcher Perkins on his famous Baltimore and Ohio ten-wheel engines of about fifty years ago. It is not in general use.



WHAT are the dangers to which engineers and firemen are exposed by their work on the engine?—J. H. E., Baltimore, Maryland.

Engineers and firemen are not only exposed to bodily injury, or even death, in many accidents which may happen to their engine, but, unless they are very careful to preserve their health, it is quickly destroyed by the constant changes of the weather to which their position exposes them, and also by the effect of the heat of the fire and by smoke. The coal gases which pour out of the furnace-door, if it is opened when the throttle is closed, have an especially injurious effect on the throat and lungs.

The steady loud clatter which an engine makes while running has an injurious effect on many

nervous systems. Engineers, as a rule, endeavor to lessen these shocks of the engine by keeping close watch over it and endeavoring to maintain the proper adjustment of its parts.

Owing to the demand which their daily labor makes upon their strength and endurance, locomotive engineers must be careful not to increase the strain by dissipation, irregular hours, or overwork. There seems to be something about the power of endurance of the human frame analogous to the capacity of a bar of iron or steel to resist strains. So long as the strains do not exceed the elastic limit—that is, if the bar recovers its original length when the strain is removed—it will bear millions of such strains without becoming weaker, but if it is strained so hard that it is permanently stretched, then comparatively few applications of the force will rupture the bar.

In a similar way, if the strain or fatigue, which a man endures, is no more than he will recover from after an ordinary rest, he can endure an almost unlimited number of such strains; but, if the fatigue exceeds his "elastic limit," then he soon becomes permanently injured.

The sixteen-hour law, now of general application, practically prohibits the working of excessively long hours, and makes the matter of proper rest between intervals of duty mandatory on the part of the railroads and the employees as well.

G. W. T., Knoxville, Tennessee.—The strain on the cylindrical part of a boiler can be calculated by multiplying its diameter in inches by its length in inches and its product by the steam pressure per square inch. Thus, for a boiler 48 inches in diameter and 10 feet long, with 100 pounds pressure, the calculation would be $48 \times 120 \times 100 = 576,000$ pounds. The reason for multiplying by the diameter instead of by the circumference is because only a portion of the pressure on the inside surface of the boiler exerts a force to burst the shell at any one point.

PLEASE advise if there is a bridge across the Mississippi River at Memphis, Tennessee, or if the trains are ferried across.—F. W. T., Ogden, Utah.

By a bridge; there is no ferry.

HOW many pounds of steam does it take to whistle for crossings, stations, etc.?

(2) Are there any locomotives running which require two firemen?

(3) Who is the oldest operator on the Chicago, Milwaukee, and St. Paul Railroad?—A. W. B., Lima Center, Wisconsin.

(1) The amount of steam expended for such a purpose is insignificant in view of the free steaming qualities of modern locomotive boilers, and would have no appreciable effect on the steam-gage, unless the whistling were unduly prolonged. Since it would have no effect on the steam-gage, it is impos-

sible to answer your question, as the gage is the measure of boiler-pressure.

(2) We cannot recall any such at this writing, and feel safe in stating that all engines, in this country at least, are fired by one man.

(3) This is rather too much for us at this long range. Why not address the chief train-despatcher of the road in question who is in your immediate vicinity?

I. C. R., Seward, Alaska.—The question of the number of brakemen to be employed on freight-trains is for State or local decision, and does not particularly interest the Interstate Commerce Commission. The work of this body is particularly connected with the safeguarding of employees and the traveling public, and freight traffic.

J. V. G., Akron, Ohio.—It is claimed for the gyroscope, monorail car, that it cannot leave the rail from any cause other than a break, or failure, of the rail itself. A failure of the gyroscope is intended to be offset by appliances, automatic in action, which will prevent the overturning of the car.

WILL a locomotive pull more in the forward motion than in the back motion; and, if so, what is the reason for the difference?—J. M. C., Havana, Cuba.

Provided the adjustment of the valves is the same for both motions, and this is the usual practise, there should be no difference in the hauling capacity of the locomotive, whether run ahead or backward. You will note that switching-engines do their work, no matter which way headed.

B., GASSAWAY, West Virginia.—Such an order as you quote is quite unusual, and we doubt if authority could be found for it in the Standard code. However, should No. 5 overtake extra 12 after having been passed, it would require an additional order for the extra to keep ahead, as we view it.

WHO owns the greatest number of miles of railroad, and who controls the greatest number of miles in the United States?—J. E. W., Peone, Washington.

We take your interesting question to mean the largest number of roads under single control, and this would be the Harriman lines, so-called, composed of the following:

Arizona and Colorado Railroad; Coos Bay, Roseburg, and Eastern Railway and Navigation Company; Corvallis and Eastern Railroad; Galveston, Harrisburg, and San Antonio Railway; Houston and Texas Central Railroad; Houston, East and West Texas Railway, and Houston and Shreveport Railroad; Iberia and Vermilion Railroad; Ilwaco Railroad Company; Louisiana Western

Railroad; Maricopa and Phoenix Railroad; Morgan's Louisiana and Texas Railroad; Nevada and California Railway; New Mexico and Arizona Railroad; Oregon Railroad and Navigation Company; Oregon Short Line Railroad; Phoenix and Eastern Railroad; Sonora Railway; Southern Pacific Company; Southern Pacific Railroad in Mexico; Texas and New Orleans Railroad, and the Union Pacific Railroad.

The total mileage of the above group is, approximately, thirty thousand miles.

WHAT is a "bending rolls" which I have heard mentioned in connection with boiler-shops?
—C. T. R., Richmond, Virginia.

A machine for bending metal plates to a circular form, such as boiler plates. Three rolls are arranged in pyramidal form. The two lower rolls are generally geared together, and the upper roll runs free, but is provided with means for vertical adjustment, and is also arranged so that it can be swung out of the way to allow the removal of the piece which has been formed. By changing the distance between the upper roll and the lower rolls, plates can be bent to varying radii of curvature.

WHAT is the heaviest narrow-gage locomotive built, and what kind is it?

(2) Is a compound locomotive stronger than a simple-expansion engine, provided that both are of equal weight?

(3) Are there any narrow-gage Pullmans built, and, if so, how many compartments are there and how arranged?

(4) Are any chair-cars built for narrow-gage roads, and how many will they seat?—C. W., Greeley, Colorado.

(1) Address H. K. Porter & Co., locomotive builders, Pittsburgh, Pennsylvania, who are in a position to give you definite information. Since the general widening of narrow-gage roads our records are somewhat hazy regarding that class of power, but the above firm has turned out many of them, and will no doubt be pleased to advise you.

(2) A comparison of the performance of compound freight-locomotives with that of simple, or single-expansion freight locomotives, as included in the report of the tests made on the locomotive testing plant of the Pennsylvania Railroad at the St. Louis Exposition, in 1904, were very favorable to the compounds. For a given amount of power at the draw-bar, the poorest compound showed a saving in coal over the best simple, averaging above ten per cent, while the best compound showed a saving over the poorest simple not far from forty per cent.

It should be remembered, however, that the conditions of the above tests, which provided for the continuous operation of the locomotive at constant speed and load throughout the period covered by the observations, were all favorable to the compounds.

Directly answering your question, it may be said

that the compound locomotive, at least, so far as these thorough tests established, was "stronger" on the draw-bar pull than the simple engine; the steam pressures being equal—compared with simple locomotives doing the same kind of work—compounds show a saving in coal and water of from twenty to thirty per cent.

Stated in another way, the compound develops from twenty to thirty per cent more power than the simple engine of the same type, consuming an equal amount of fuel and water.

Liability to breakdowns and cost of repairs are items that usually show a balance in favor of the simple engine; but where intelligently handled and maintained the advantages of the compound outweigh these defects.

(3) and (4) All elaborate narrow-gage passenger-car equipment, including the types which you mention, disappeared with the application of standard gage to the Denver and Rio Grande road and to the Mexican National Railway. When narrow-gage roads, these two lines had a splendid equipment of Pullmans and chair-cars, and these were so admirably proportioned that it was difficult to realize the difference in the gage of track. The narrow-gage roads generally are fast disappearing. Read the article, "The Riddle of the Gage," in this issue.

WHAT is a Mikado type of engine, and are there any in use in the United States?

(2) Which road handles the most freight, the Santa Fe or the Southern Pacific?

(3) Where is the steepest broad-gage grade in the United States?—J. M. J., Fulton, Illinois.

(1) It is known under Whyte's system of classification as 2-8-2, *viz.*: a two-wheel leading truck, eight connected drivers and a two-wheel trailing truck. While not a common design in American locomotive practise, they are by no means a rarity in this country. The Northern Pacific Railroad has many fine examples, particularly in its 1500 class. These engines have cylinders 24 x 30 inches, working steam pressure, 200 pounds per square inch; diameter of drivers, 63 inches; weight on drivers, 196,000 pounds. Total weight, 259,000 pounds. A Mikado locomotive is no more than a consolidation, 2-8-0, with the addition of a trailer which permits a wider and deeper fire-box.

(2) The reports for this year are not yet available, but there is little difference between the two in total tonnage handled.

(3) It is said to be over Raton Mountain in New Mexico, on the Atchison, Topeka, and Santa Fe.

J. E. O., Chanton, Iowa.—The Long Island Railroad does quite a freight business, as is indicated by its possession of 1,669 freight-cars.

(2) In combination with the Pennsylvania Railroad the electrification extends from Harrison, New Jersey, to Sunnyside, Long Island.

(3) There are quite a number of Mallet articulated compound locomotives east of the Mississippi River. The Erie has three, the Baltimore and Ohio one,

and the Virginian Railway, the last enterprise of the late H. H. Rogers, is well stocked with them for its heavy tonnage hauling.

H. B. W., Pittsburgh, Pennsylvania.—You might address W. W. Slater, signal engineer, Southern Pacific Railway Company, San Francisco, California, in connection with the matter on which you are seeking information.

DOES a person require a permit to ride a bicycle with an attachment on a railroad, and to whom should application be made?

(2) Where can I obtain a small working model of the Stephenson link-motion, either made of cardboard or steel?

(3) Will a soft-coal engine burn hard coal as well, or do they require a special grate for hard coal?—K. M. H., Yarmouth, Nova Scotia.

(1) Application must be made to the division superintendent in charge of that portion of the road over which the applicant would like to use the bicycle. A severe penalty would likely be imposed on any one using the tracks of the railroad for this purpose without authority.

(2) Try *Railway and Locomotive Engineering*, 136 Liberty Street, New York City, New York.

(3) Anthracite, or hard coal, differs from bituminous, or soft coal, in the fact that it contains a much larger proportion of carbon and less of hydrogen, and that it consequently gives off very little or no coal-gas. Its combustion is, therefore, more simple than that of bituminous coal, as there is very little else than solid carbon to burn. It is usually burned on a very long grate, and, as the heat is very intense, the grate-bars are usually made of iron tubes, through which a current of water circulates so as to prevent them from melting. These tubes are screwed into the front, or tube-sheet, of the fire-box, and are fastened with tapered thimbles in the back ends, which are driven into holes in the back sheet, so as to make a tight joint around the tube.

As these tubes are so fastened in the sheets they are immovable, and it is necessary that some means be provided for drawing the fire from the fire-box. This is done by using solid bars instead of tubes at intervals, which rest on a support or bearing-bar at the front end and at the back end of the fire-box pass through tubes in the sheets through which they may be withdrawn when it is desired to remove the fire.

There are, of course, many variations in grate arrangements for hard-coal burners, but all are on the same general plan with water-bars.

C. H. M., Honolulu, Hawaii Territory.—No roads east or west of the Mississippi River have made a complete installation of the telephone system. A recent compilation shows five per cent of the total trunk-line mileage of this country to be operated by telephonic train-despatching circuits, but every road upon which it was then in use contemplated a further extension. It is hardly likely

that the telephone will entirely supersede the telegraph, but, no doubt, it will be of some general application.

(2) Advance block signals are used by many roads in addition to the Pennsylvania. We might mention the Erie; Delaware, Lackawanna, and Western, and Lehigh Valley among those equipped either as a whole or in part.

(3) and (4) For books apply to *Railway and Locomotive Engineering*, 136 Liberty Street, New York City, New York, or to *Railroad Age-Gazette*, New York City, New York.

(5) Your question is not sufficiently explanatory regarding the relative positions of the engine, the switch, the tower, and the signal bridge. The way we view it, however, the movement must necessarily be made by hand signals under the protection of a flag. We regret that you did not enclose a rough sketch or diagram of the above positions, as such points are always of much interest.

(6) In this country, the flagmen must always go back the distance required by the company's rules to protect the rear end of his train whenever an unusual stop is made, and irrespective of whatever system of block signals may be employed. Applying such rules to the situation which you depict, the flagman would or should pass the home signal over one thousand feet.

WHAT is the best method to employ in running over the valves of the Corliss system on a locomotive?

(2) What is the best method of getting the port marks of engines with inside admission valves without taking them out of the valve-chambers?

(3) When renewing new cylinders is there any possible way of chipping the saddle without first putting the cylinder against the smoke-box and scribing it off?

(4) What is the best method of turning an axle in a lathe in regard to the size of the hub, so that it would press in with about ninety tons?

(5) What road was the first in this country to introduce the Walschaert valve-gear, and which road has now the most engines so equipped?—T. J. M., Havre, Montana.

(1) Never heard of the Corliss valve-gear in connection with a locomotive engine, although it is, of course, a lifelong friend in stationary engine practise. The Stephenson link motion, the Walschaert gear, and the Joy gear are commonly employed for the purpose of actuating the slide-valve of engines in this and foreign countries, but there is another less used called the Gooch valve motion which may be the one to which you refer. In this latter valve motion the link is hung with its curvature reversed to its usual position, and, in some cases, is driven by eccentrics on an axle ahead of it. If you will send a rough sketch of the motion which you have in mind, we will quote the approved practise in making adjustments.

(2) The best method is to take the valve out and do the job right. You can, however, push the valve against the front exhaust port, mark the steam in that position, and, if you have the valve and port dimensions measure for the rest of it. All such

practises, however, are unsatisfactory, arising from the liability to error when so many sizes are being added.

(3) A fair job can be done by making a template from the old cylinder saddle, which you have removed, assuming, of course, that you have reference to repair work. For instance, applying one new cylinder to an engine. In the instance of new work, it is advisable to put the cylinder up and mark it off. The editor of this department, however, does recall a device for this purpose, which he noticed in the shops of the Baltimore and Ohio Railroad over twenty years ago. It was a wooden structure, shaped like an inverted "T," the bottom being curved to the inner curve of the smoke-arch to which the new cylinders were to be fitted.

From the upright part of the inverted "T" a pendulum scribe was hung and adjusted to exactly sweep the *outside* curve of the smoke-box. This being effected, the machine was removed from the smoke-box and set up on the saddles of the two new cylinders, which, of course, had been previously bolted together. It only remained to scribe the front and back saddle-flanges with the pendulum mentioned, the length of which had been determined as above explained.

These lines so scribed on the front and back saddle-flanges were continued by means of a straight edge on the side-flanges, and they were chipped. The writer's recollection is that they got very good results from the device, although it has long since been abandoned.

(4) It depends entirely on the metal composing the wheel. The proper allowance to be made is largely, if not entirely, a question of judgment, experience, and the "feel" of the calipers.

(5) The Walschaert valve-gear was first introduced into this country in connection with the Baltimore and Ohio locomotive No. 2400, built at the Schenectady works of the American Locomotive Company in 1904. This engine was also the first Mallet compound. After much experimenting, the Walschaert gear received the unqualified indorsement of A. W. Gibbs, general superintendent of motive power of the Pennsylvania Railroad, and, in all probability, that road has more locomotives so equipped than any other, although the New York Central lines are making a general application.

Space limitations forbid giving a description of

the Baker-Pilliod valve-gear, as much as we would like to oblige, and the same applies to your request in regard to a valve-setting problem in the Walschaert gear.

The editor of THE RAILROAD MAN'S MAGAZINE, however, advises that in connection with the latter motion an early article will deal with the subject from every angle, and in particular will thoroughly explain the procedure in usual and unusual cases, as indicated by the marks on the valve-stems.

A. A. L., Berea, Ohio.—The engines of the Boston, Revere Beach, and Lynn Railroad are of the Forney type, equipped with Joy valve-gear.

(2) Eight-wheel type, 4-4-0.

(3) The locomotive classification was published in this department, July number, THE RAILROAD MAN'S MAGAZINE. It was republished in tabulated form in our August number, page 480.

(4) Cannot say exactly where you could get photographs of old and modern locomotives in this country.

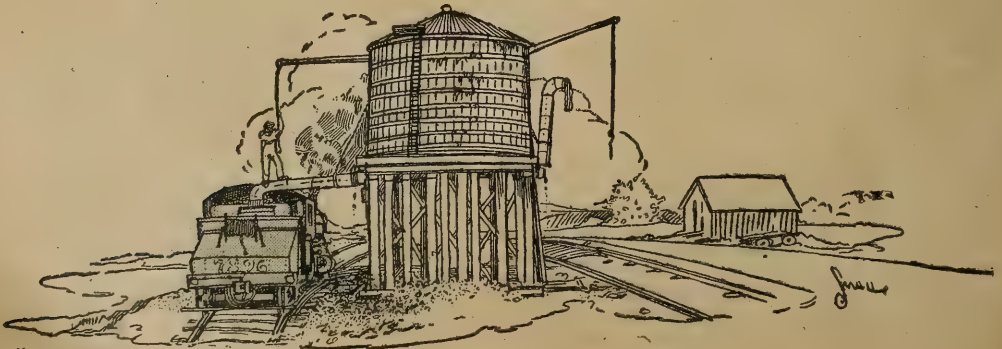
(5) Quite a few diamond stacks are still seen on Mexican railroads.

(6) Single-driver locomotives disappeared many years ago from American practise. They were, of course, the earliest type introduced into this country, but rapidly gave way to the American, or eight-wheel type, which remained the standard for passenger service for over half a century.

C. B. B., San José, California.—To secure the information which you desire regarding the Long Island Railroad, we would suggest that you take up the matter direct with Ralph Peters, president and general manager, Long Island City, New York.

WHAT is the longest bridge in the world?—
F. M., Hoboken, New Jersey.

The longest bridge in the world is at Sangong, China, and is called the Lion Bridge. It extends five and a quarter miles over an arm of the Yellow Sea, and is supported by three hundred huge stone arches. The roadway is seven feet above the water, and is enclosed in an iron network.





Told in the Smoker.

BY OLIN CRAWFORD.

Some New Experiences of the Knights of the Grip that Will Make Other Travelers Hold On to Their Buttons and Ask for the Pedigrees of Their Smoking-Compartment Acquaintances.

AN INTERRUPTED GAME.

SOMEbody in the group in the smoking-compartment of the sleeper had just unburdened himself of a mournful tale of how he had fallen a victim to the game of a card-stacker in Chicago.

"That's about the only kind of bad luck that never reached me," said George Munroe, who travels for a Brooklyn hat factory; "but there was a time when it gave me a pretty close call.

"There were three of us. Sol Goldman, out from Bond Street with 'the finest shirts on earth,' and Fred Kress, whose specialty is razors, were the other two. We were all trekking for home by way of the Big Four, when Kress suddenly caught the poker fever.

"Sol thought a four-hander would be more interesting, and somewhere in the train he managed to dig up a stranger who had such an open, honest face that we all thought he was the real goods.

"We hadn't dealt half a dozen hands before the three of us began to tumble to the fact that the stranger was no spring chicken at the game. He was wiping up everything on the board.

"Luck! Why, with the luck he had, he could have gone out in his back yard and discovered a gold-mine. Before long he had

us all so flustered that we wouldn't bet more than a white chip on a straight flush.

"We gradually got a strong hunch, however, that the stranger wasn't playing a straight game, and we made up our minds that we'd better quit if we didn't want to live on bananas the rest of the way home.

" 'I've got a bad headache,' Sol was saying, by way of getting out, but he didn't finish the sentence. He didn't have to, for the stranger suddenly slammed his cards down on the table and jumped to his feet, quick as a cat. In a second he was down the aisle and disappearing at the end of the car.

"We were at a station at the time, taking on passengers. Pretty soon the train rolled out, but he didn't come back. We waited and waited. A quarter of an hour went by, but still no stranger.

"One of the passengers in our car was a fat man who had just got aboard. He wanted to know what the stranger looked like. We told him he was a tall, slender chap, with black eyes and a scar on his chin. For a moment he looked as if we'd handed him a big surprise.

"Then he began to dig into his inside pockets. He pulled out a poster with a man's picture on it—and it was the picture of our missing fourth hand. Perhaps you've heard of Roy Smith, who broke out of Joliet, where he'd been sent for grand larceny.

All-round gambler and bad man, and one of the slickest card-sharps in the West. Well, he was the man.

"The fat man? He was from the Chicago Central Office—Chicago or Buffalo, I forget which. Anyway, he was a detective, and our fourth hand must have seen him coming in at one end of the car just in time to get out at the other.

"I was the banker of that game, and I owe that runaway convict twenty-two dollars and thirty cents. Sol and Fred Kress have been after me for years to split it up between us, but I say: 'No; that Western crook may come for it some day—if the police don't get him first.'"



PETERS'S HAIR-RESTORER.

"**S**PEAKING of fat men," remarked Harvey Small, one of the roadmen from the Broadway clothing district, "some of you boys must know Harry Peters, the shoe-bagger. Perhaps you don't know how he got his experience as a roadman. It was selling hair-tonic—his own preparation. Quite a jump from hair-tonic to shoes, but I guess he likes shoes better. There's all kinds of bad luck goes with hair-tonic.

"That particular preparation of his was more than a tonic. It was a hair-grower, guaranteed to grow hair on bald heads inside of a month. To hear Peters tell about it, you'd think it would make frayed hair-cloth furniture as good as new, or a billiard-ball look like a powder-puff in a week. You could sprinkle it on your mangy house-cat, and have an Angora in thirty days.

"It was a wonder of wonders, that preparation—either that, or Peters was a wonder as a truth-destroyer. He'd put a couple of thousand dollars—all the money he had—into his hair-grower; figured on making a million or so, and retiring. But, as I said, there's no luck in hair-growers.

"The first way Peters exhibited his business sagacity was in getting the top of his head shaved as smooth as ivory. Then he started out on the road with his preparation. The drug-store people wanted to know why his restorer wouldn't grow hair on his own bald head. Peters told 'em to wait a while.

"It was a brand-new remedy, he explained, and he hadn't had time to experiment with it in his own case, though he'd seen it work wonders in others. He told 'em he soaked his own head in it twice a day, and was looking for quick results.

"He had been out on the road a few weeks, and began to double back over the same route. There was thick, black hair, half an inch long, all over his bald top. It was a brand-new idea in advertising, and it certainly made those druggists sit up and take notice.

"But the trouble with that game was that it wasn't good for more than one season. The druggists, finding the stuff didn't come up to Peters's prophecies, were all overstocked and wouldn't have anything more to do with it. Then some man down South claimed the stuff had turned his hair from red to green, and sued Peters for ten thousand dollars' damages.

"What became of the suit I don't know, but Peters was out hustling for a job before long. That hair-grower ruined him. That's why he's selling shoes to-day. He's grown as bald as a bat, but it's no use trying to get him to experiment with any hair-growers. He can't bear to hear 'em mentioned."



A MATRIMONIAL GOLD BRICK.

THE ensuing talk about bald heads and their causes reminded Frank Rolfe, a Newark hardware salesman, of Sam Lewis, who used to travel for a Broadway millinery house, and whose cousin he had met a few days before in St. Louis.

"Sam was a living illustration of the fact that it's worry that causes baldness," declared Rolfe.

"After his unfortunate matrimonial affair he grew as bald as an eagle. That marriage of his shows that a man ought to stick strictly to his employer's business when he's on the road. But Sam always had an eye out for the ladies, and was always talking about how he meant to marry rich and retire.

"Any man can do it,' he'd say, 'if he's only got sense enough. The world is full of single women with fat bank accounts, looking for husbands. Look at all the rich men's daughters, and at all the rich widows! There must be a million of 'em. It's a good deal easier to propose to one of 'em in the space of ten seconds than it is to work for twenty years selling goods.'

"One day while Sam was running west on the Central he saw a good-looking woman in the next seat who had a pint of diamonds sprinkled over her. She had a fur coat that must have cost a mint of money, too, and it was easy to see she must be well fixed.

"He kept his eyes glued on her and on

the fur coat and the diamonds, and, as he couldn't see any wedding-ring, decided she must be single. He got a chance to get into conversation with her, and before they got to Chicago he'd proposed and had been accepted. They were married the very next day.

"Sam sent back word to his friends that he'd married a million, and he began to think about throwing up his job. But it wasn't half a day after the wedding when his bride told him she had a confession to make.

"She'd been married before and had divorced her husband. He had to pay her a good, fat alimony, but that would stop, now that she'd married again. Outside of the alimony she didn't have a cent, and her diamonds were most of 'em paste, but she was sure Sam hadn't married her for mercenary reasons, and wouldn't mind about that.

"After Sam had pretty near worried himself to death over that development, she announced she'd got another confession to make. He must be prepared to meet her children. She had five of 'em!

"Well, you don't suppose I've got to support another man's children, do you?" gasped Sam. "What's the matter with his supporting 'em?"

"But they're not his," she explained. "When I married him I was a widow, and I had 'em all then."

"To add insult to injury, that divorced husband met Sam a while after that, and told him he wished him joy—that he had to thank him for lifting a load of trouble off his shoulders."

CUPID FOILS A ROBBERY.

"THERE was the case of Tom Wales," said Terrence Murphy, of Maiden Lane. "He was running out of Detroit one day, when he fell in with a nice-looking young fellow, who told him he was traveling about the country for pleasure. By the time they got to Cincinnati, the stranger knew Wales's line and had a pretty good idea of the value of the goods he was carrying. As a matter of fact, Wales had fifty thousand dollars' worth of jewelry locked up in a big case.

"They both went to the same hotel. The next morning Wales called a cab to take him to the train, and, while the cab was waiting outside, he gave a porter a quarter to watch the jewelry-case in the lobby. The case was as big as a small trunk, so there

didn't seem to be much danger of losing it. As soon as Wales's back was turned, along came the new-made friend, told the porter, who had seen the two together, that he would take the case to the cab, hurried outside with it, jumped into the cab, and told the cabby to drive somewhere.

"Did they get him? They haven't yet. He's one of the few crooks that ever slipped through the far-stretched net of the Jewelers' Protective Association. But his capture isn't so necessary, for the jewelry has all come back. Two months after the robbery, more than half of it came in a lump from some place in the West.

"Then came a letter without a signature explaining that the writer was the thief who had taken the jewelry and that he'd fallen in love with a nice girl and was conscience-stricken. He told her the whole story and had promised her he'd send every bit of the stolen jewelry back. The rest of it came piece by piece, and it took more than a year before it all got back to Maiden Lane. Evidently he'd hocked part of it, and had been getting it out of pawn in instalments as fast as he could afford it."

THE ABSINTH DIAMOND.

"I KNOW a better Maiden Lane story than that," said a man with an enormous black pearl in his tie.

"It's the story of the absinth diamond. If you know anything about jewels, you'll know that the absinth diamond, when it's of any size and perfect, is one of the rarest and most valuable stones in the world. It's just about the same dusky whitish green as absinth, and there's a weird light in it that's enough to give a man the jim-jams.

"Martin Crosby, who's retired now, but was for a long time a well-known diamond salesman, was riding in a day car on the Santa Fe in Colorado, in 1893. He noticed, in the next seat, a shabby young chap wearing a sombrero and looking like a ranchman.

"The next moment, Crosby's eyes pretty near popped out of his head with surprise. In the tie the young man was wearing was an absinth diamond of at least three carats. Crosby was over talking to him inside of thirty seconds. He got a good long look at the stone, and he was dead sure it was genuine. But the mystery was, how did this shabby young ranchman come to have it?

"Crosby's firm had been looking for just

such a stone. He asked if the young man wanted to sell it. Yes, he thought he would, if he could get a hundred dollars for it, for he was broke. Of course, it looked like a case of thief right away. But Crosby followed the man up; found that he was a young Englishman with a wife and baby, and that they were almost starving to death out on a little ranch where the irrigating ditch had run dry and the crops had failed.

"The diamond was an heirloom, the young man's only inheritance, for his parents' fortune had been swept away before he came to America. Crosby investigated, and was convinced that the story was true. But he wasn't small enough to take advantage of the man's ignorance of the stone's value, and after getting in touch with his firm he offered him seven thousand dollars for it. The money came just in time to save the Englishman's farm from foreclosure.

"Seven years went by. One day that young Englishman appeared in Maiden Lane. He had become one of the richest wheat-farmers in Montana, and he had come East to hunt for his absinth diamond. At length, he found it in a store on Fifth Avenue, where, for years, it had been lying in the safe. He paid twenty thousand dollars for it.

"I promised my mother, who's been dead many a year, that I'd never part with that stone unless I had to," he explained. "I sold it because I was down to my last dollar, and didn't want to see my wife and child go hungry; but I always meant to get it back."



WHEN THE SUN WAS LATE.

DOES anybody remember Cy Burrill, the alarm-clock man? No, he didn't sell alarm-clocks. Shirts were his line. But he practised with a vengeance the theory that the early bird catches the worm, and he always carried an alarm-clock with him to rout him out of bed at the most unearthly hours. I will take my oath that the full extent of his personal baggage was that alarm-clock and a comb.

"I had a grudge against Cy and his old clock, for I once shared a room in a crowded hotel with him, and had been routed out by his buzzer before daylight. Lying over a night in Ashland, New Hampshire, I ran across Cy and a fellow named Joe Wetherbee; and after Cy had gone to bed—as usual with the chickens—I told Joe that story.

"Well, here's your chance to get even," said Joe. 'Cy's going to take that sixty-three train down to Nashua in the morning. He's a sound sleeper, and we'll go up and twist the hands of his buzzer ahead about four hours and a half, and he'll get up in time for the 2 A.M. There are no locks on these country hotel doors.'

"Joe and I waited up to see our scheme work. About ten minutes of two Cy came scurrying down-stairs in a hurry, with his clock under his arm, for he'd overslept, he thought. No proprietor around; no breakfast, but he didn't have time to wait.

"He lit out for the station, and got there just as the two o'clock train rolled in. He'd been wondering why in thunder it was so dark. We were down at the station, to make sure that he got away, and, as the train pulled out, he stuck his head out of the window, stared up at the stars, and said: 'By gum! It's the latest sunrise I ever saw!'"



A GRATEFUL HOBO.

IT'S surprising how many romances a man tumbles into on the road," observed George Munroe, who had told the poker story. "Coming down from Seattle on the S. P., our train stopped for water in the woods near the California border one morning, and some of us got out for exercise.

"A ragged, soot-blackened young fellow scrambled down from the roof of one of the sleepers where he'd been riding all night, and asked one of us to get him a glass of water. He gulped the water down like a thirst-crazed man in the desert, and I found out that he hadn't eaten in about twenty-four hours.

"I went into the diner, and when we made our next stop I called to him, and he came scrambling down. I handed him half a dozen sandwiches and half a dollar. He was the most grateful chap I ever saw, and he went at those sandwiches like a famished wolf.

"About a year after that, I drifted into Goldfield on a round-up of the Nevada hat dealers. I had lost my roll somewhere in the train. I was wondering what I was going to do for money.

"I was getting a bite in a restaurant, and was telling my tale of woe to a chance acquaintance at the counter, when a young chap tapped me on the shoulder and remarked, 'I can help you out with a hundred or two.'

He went to the cash drawer and pulled out a roll of bills. 'I'm making barrels of money feeding miners in this boom town,' he said, 'so you needn't think I can't spare it.'

"It was too much of a mystery for me. I was dazzled. 'Is this the way you usually treat strangers out here?' I asked.

"Well, sometimes,' says he. 'If you'll take a good look at me, perhaps you'll remember the fellow you saved from starving on the S. P., last year.'"

Just then the porter put his head in.

"Can any of you gents change a five-dollar bill?" he inquired.

"I can," said Harvey Small, digging into his pocket and taking the fiver. "Here's four ones and a half-dollar. You can keep the other half-dollar for yourself."

"Thanks, boss," returned the porter, and he went away smiling gratefully.

"Aren't these porters wonders!" cried Small. "I've worked that game time and time again, and they always bite." But the porter came back.



DOING THE SAMARITAN ACT.

"IT'S pretty tough for a man to be stripped of all the coin he's got when he's on the road," remarked Tom Bowles, the under-wear man.

"I've had that experience myself, and I know. But it's harder still on a woman. She simply goes into hysterics in such a plight. I've always had a notion that it was a case

like that that boosted Jim Corning to the job of manager of one of the biggest concerns in Chicago.

"Ten years ago Jim was on the road for the house he's with now. He was a young fellow, just breaking into the business. Once, as he was going into the diner for breakfast on the C., B. and Q., he noticed an old lady crying. He asked the conductor about her, and learned that she had been robbed of all her money during the night.

"He went over and spoke to her, and she told him she was going through to Denver, and was worrying over how she was going to buy food on the way. He pulled out twenty dollars and insisted on her taking it as a loan. She consented, and took his name and address.

"A few days later the money came back to him in the mail, and with it a note of thanks from his boss, who explained that it was his mother he had helped. Jim began to climb right up toward the top in that house from that time, and I guess it was largely because the boss remembered what he'd done."

"Those sympathetic yarns!" growled Terry Murphy. "They don't go with me—not since I lent a girl in the same fix ten dollars and found she'd been working that game on all the roads in the country. Of course, if I'd been born lucky, like Corning, she'd have turned out to be the daughter of my boss; but I must have come into the world under some other kind of a star."

DISINFECTING PASSENGER CARS.

German Railroad Uses Original Method of Ridding Trains of Vermin and Deadly Bacteria.

BETWEEN the ordinary method of cleansing railway passenger-coaches with the house-cloth, broom, and the cushion-beater, ordinarily in vogue in this country, and the scientific processes developed in Germany, there is all the difference in the world. Perhaps the conditions of international traffic in Europe account for the advance in European methods, for it has been the experience of German railroads that cars sent into and returned from Russia, for example, are often infested with vermin. These could not be exterminated by the ordinary precautions, consequently apparatus has been devised for accomplishing for railway coaches what has long been done for steamships.

At the Potsdam shops of the Prussian state railways a huge cylindrical structure has been provided, into which the car is run. After the heads

have been hermetically closed the interior is heated to a temperature of from 114 to 122 degrees Fahrenheit, the heat permeating into the cushions and into all upholstered parts. At the same time the air is pumped out of the cylinder, the partial vacuum and the heat together destroying any trace of animal life, germ as well as insect. If a still more thorough disinfection is desired formalin is also introduced.

The total weight of the apparatus is about three hundred thousand pounds, and it is provided with special inspection holes for the reading of the thermometers on the inside. It has been found that the entire process of heating, obtaining the partial vacuum, etc., requires about two hours' time. It is also claimed that the polished wood surfaces of the cars suffer no injury from the process.

BEYOND THE DRIFTS.

BY J. R. STAFFORD.

Engineer Millburn Ran the Snow Blockade, but Death Was Waiting to Take the Throttle.



TO Millburn the warmth of the red-hot, cannon-ball stove in the six-by-fourteen office at Damon Station, after five consecutive hours in the numbing cold of his engine-cab, was the next thing to paradise. Twisting at the icicles in his gray mustache, he leaned gratefully to the heat, and his satisfaction was supreme, for because of the snow blockade, Damon was now the end of the run, and the icy gale that roared outside would not get another chance at him that night, at any rate.

It had been a hard day, one of the worst in many winters on the prairies of the Far North, and he and some of the oldest men on the division pay-roll, who had been called, out of their turns, to make up the crew for 96, had suffered intensely with the increasing cruelty of the weather.

Presently the station-agent, a dull fellow whose eyes made the old engineer think of watery pools, frozen to the bottom, came toward him and thrust out a yellow paper.

Supposing this to be the regular order for a lay-over until morning, Millburn held out his right hand for it, while with his left, he mechanically fumbled in his blouse pocket for the bit of pencil with which he would scrawl his O. K. But as he unfolded the sheet he read:

Cut out everything but loaded coal-cars, engine 96, at Damon. Proceed with said coal-cars and snow-plow to relief of cold sufferers at Devil's Slough.

"O. K. that er not?" the agent inquired.

Gazing into the cold, sullen eyes of the man before him, the engineer felt himself shivering as he replied: "Wait a minute. Wait."

He wanted time to think. This order decreeing that he and his fellows must struggle

in the storm against those forty-foot drifts, with only a single engine and a plow, was absurd enough to have originated in the mind of this loutish agent. Also, it was heartless enough to have emanated from the same brutish source.

Knowing, however, that an order does not come from headquarters except with a very definite purpose behind it, he realized instinctively, that this one had been sent out only for the purpose of silencing newspaper agitation against the North Orient Railroad because of its failure to relieve, at once, the suffering at Devil's Slough, caused by the storm.

In the light of this reasoning, he also saw that he and his gray-bearded fellows had been drawn for the run, because being over the age limit they would not dare refuse, lest they should be discharged and cut off forever from railroading, and a livelihood.

Millburn gazed thoughtfully at his age-worn fireman, Johnson, and he noted, too, how clearly the years had wrought havoc with Brakemen Smith and Clark. Oakerson, the conductor, had only recently recovered from an attack of pneumonia, and was still weak and thin. Knowing that for the sake of their families these four men would obey the command to go up into the freezing drifts where, beyond all doubt, permanent disability and perhaps death awaited, his heart went out to them in pity.

A desire to save them came to him, and as he racked his brain, a plan slowly took shape. It meant the end of his own railroading; but, after all, his suffering would not be nearly as poignant as theirs.

"I won't take 96 any farther," he said finally in a quiet tone.

The mouth of the agent gaped wide, but the eyes of the four, vaguely comprehending, beamed approval.

A scuffling noise came from the other end of the room, and out of the deep shadows there, a scarecrow of a man limped forward. His hands were like swabs of dirty rags, his nose and ears were black and peeling, and his cheeks had the metallic hue of broken iron, but his eyes glowed with a light that showed a mighty purpose behind them.

"Mister," he said, coming close to the engineer, "I reckon it were me that got ye into all this trouble. I mean I got ye into it because this here agent wired 'em as I ast him to. I come out from Devil's Slough, ye see. Them people up there is a needin' help mighty bad. They h'ain't got no coal nor no wood nor no nothin'. The outsides and the insides of all of them houses but one up there, is gone, and the inside of that one were a going when I left, jist to make a little fire for the chillun to hover over.

"Mister, they's winmin an' babies a freezin' up there. Yes, sir, they air a freezin' to death, slow like, while you an' me is warm and comfortable by this stove."

He put up his hand to shade the light from his frost-fevered eyes and then went on:

"And me a seeing that, were what made

me come. I 'lowed that if I could make it out a-foot, other men might think they could go in on a train.

"I heerd ye say ye wouldn't go no furt'er. Prob'ly ye've a wife an' babies of yer own at home; but, mister, if they wuz up at Devil's Slough, and every time ye shet yer eyes ye seed 'em a freezin' there, as I kin see mine now, ye'd simply have to go. If ye couldn't he'p 'em all alone, ye'd hunt as I be huntin', thinkin' that people with no fault of their own, shorely cain't git past help. An' ye'd come freezin' here as I come and ye'd beg as I'm a beggin' now for he'p."

The engineer looked again into the faces of his fellows and upon their straightening forms, but this time, in the light of his kindling sympathy for the sufferers at Devil's Slough, the sacrifice seemed more worth while.

"We better try," he said quietly. "Yes, we got to try."

Then withdrawing the pencil from the pocket of his blouse, he scribbled his O. K. upon the order.

Forty minutes later, with seven cars of coal somewhere in the whirling night behind him, and with the crew and the half-frozen man crowding his elbows in the narrow cab,



"O. K. THAT ER NOT?" THE AGENT INQUIRED.

Millburn opened the throttle, and 96 was on her way in the forlorn hope of reaching Devil's Slough before it was too late. The snow-flakes danced upon his 'cab-panes, hemmed in by the black of the night beyond, and he watched until it became a thick white veil that cut off even the darkness.

He swept his hands upward and sought to climb. With infinite toil he gained a few inches, but his arms stiffening as if age had struck them, he slipped slowly back to the bottom, and staggered past the wheels, up the steps into the cab.

"I don't know how thick it is," he said.



"PROB'LY YE'VE A WIFE AN' BABIES OF YER OWN."

He thought of his wife and children at home, and then of the women and of the babies at Devil's Slough. He shook his head, but he opened the throttle a little wider.

After a time he felt an increasing pressure of the snow against the plow. Then suddenly the cab reeled backward, and he knew they were stuck fast in a mighty drift.

Having shut down, he lifted the storm-curtain which hung between the tender and the cab. The icy whirl filled his eyes completely, and the cold stung his nostrils and his ears. Under the blindness and the sharp pain, he hesitated, until, getting his bearing, he dropped from the steps into the snow. Feeling his way, he floundered past the drivers, the pilot-wheels, the flag-standard, and then his shoulders struck against a solid bank in which the snow-plow was embedded.

"It may be a whole lot, and then, again, it could be nothin' at all."

Reversing, he backed and backed until the distance for a good run lay between them and the hidden wall. After waiting five minutes for a higher boiler-pressure, he opened the throttle for the plunge ahead. Beneath the wheels the rail-joints rattled, then clicked rapidly to the flying speed. Again the cab reeled backward; this time with a thunderous hammering sound as the drivers settled back upon the rails.

A second time he reversed, and a second time, with higher pressure, he hurled forward. Again came the impact, and again the thunderous blows of iron on iron beneath them. Suddenly the cab settled lower and lower, and he knew that the rail under the toppling mogul had given way.

Turning to Oakerson, he said: "We got to have shovelers. Go back to Damon and ask for the section crew." As the old conductor obeyed, he began getting out the jack-screws and the bars.

After two hours, with the help of all hands except the fireman, who stayed above to keep the water-pipes from freezing, he had the engine once more level, and after another two hours, he had ripped a good rail from some distance behind the train and put it in place of the broken one. Then he took out the jacks, and 96 was on her feet again, with her only way of retreat cut off.

At noon Oakerson returned with six section-men, and an order from headquarters that the train be immediately returned to Damon.

"But when are they goin' to try to make it up to Devil's Slough?" Millburn asked.

"I dunno. The agent up there said that the papers this mornin' has it that the blockade is absolute, and that there couldn't be nothin' done until the weather cleared, so there's no need of rushin' now."

"Well, we're not goin' back."

"There's the order," Oakerson postulated.

"Yes, but we're not here because of any order. We're here because we want to help the people up at Devil's Slough. We've got force enough to try shovelin'. We better try. We got to try."

To this three of the section-men and three of the train-crew assented, and, with Millburn, they took their shovels and groped past the drivers, to begin their blind toil against the drift.

There, in the whirling chaos, their mittens and their clothing became crackling mail. Their breath froze in their beards, and their eyebrows were covered with ice, but always Millburn urged them onward with his own steadfast courage, and, obeying him, they saved themselves from freezing by desperate shovel-play. At length, when the day, that more resembled night, was disappearing under a darker swirl, he gave them leave to rest.

While they floundered, groping their way back to the cab, he went once more to the scene of their digging, and found, to his grim satisfaction, that they had made, perhaps, a hundred feet.

Returning to the engine, he worked an hour helping the fireman to get a head of steam, and they drove forward again into the narrow cut.

Then, after a supper of bacon and bread and coffee, cooked over a shovel of coals from

the fire-box, he led them once more against the drift.

Six times that night he got a head of steam, and six times he drove the pilot an engine-length ahead.

But, with dawn, it seemed that his efforts must cease, for the wind, which all of the day before and through the night, had blown a gale, now rose to a hurricane.

Undaunted, however, he advised the men to keep on.

"We can't go back now," he said, "for the snow in the mouth of the cut is blocking us. We've got somehow to make it out, to-day, because the water won't hold out for steam another twenty-four hours, and mebbe them people up there can't hold out either. We've got to try some more."

So again he led them to the work, but the wind drove the clouds of fine snow into their nostrils, suffocating them as smoke. To save the men from strangulation, he led them up the incline to its very top, where he shouted, above the storm, "We daren't go back. We'll shovel here. The wind will help."

But here the cold was terrific. It looked all moisture up in frost, and the frost in turn disintegrated, and blew away in frozen dust.

Their ice-mail of the day before was turned to powder now, and through their coarse clothing the wind swept, as if upon their naked bodies. They dropped their shovels, and, covering their heads, settled down in the snow to die.

The engineer unfalteringly stuck to his task until his hands were helpless from the cold, and then, joining his fellows, he also waited.

Presently, however, as he felt the numbness creeping deeper and deeper, he was aware of a strange sensation—that of being moved. Then he heard the voice of Johnson shouting that they were being blown away, and in the next instant he knew that he was falling and sliding down a slope. Suddenly his foot touched something. He groped about, and, feeling a rail and a tie beneath him, he lifted up his voice in a shout that thrilled them through and through:

"It's swept the cut. It's swept the cut."

At that moment, as if some obstruction that had been restraining it had given way, the tempest surged against them with a force that threw them off their feet. He struggled to his knees, but, his hands and arms being powerless, he could not crawl. Again he waited.

Presently, in the white murk, he saw a



W.T. H

A SUPPER COOKED OVER A SHOVEL OF COALS.

black something show and disappear. It showed again, and he knew it for the crusted snow-plow at the head of the train which the wind was pushing toward them along the rails.

"She's comin'," he shouted. "Ketch 'er as she goes by."

Then, rolling from between the rails, he got to his knees, and when the cab-step drew alongside he encircled it with his helpless arms, clinging on until assistance came.

Inside the cab he brought life back to his hands by the torture of the fire.

"I daren't wait for the snow," he explained. "The way is open, and the water's goin' fast. We got to drive her on."

Then for twenty minutes he was busy with a thawing-torch over the water-pipes and the stiffened oil in the cups. When the steam was rising in the gage, he went to the tool-box for a heavy jack-screw, with which he crawled through the window of the cab and over the slippery jacket to the dome.

Having wedged the safety-valve so that it could not open, he went back.

"Now," he said to them, "everything is ready. We'll go ahead when the steam gets up. I don't want to be advisin' you what to do, but I can either make it on alone with the Devil's Slough man to fire, or else we

can't any of us get through. There's just water enough if we don't lose a gallon. I've fixed the pop-off so it can't open and lose a drop. But if we hit another drift and the pressure's high, I reckon the boiler will bust. I suppose my hands will hold out if everything goes all right. You fellows can do what you want to. I expect the chances are better for your going back to Damon."

The brakemen both disappeared behind the curtain, but old Johnson stayed.

Presently the hand of the gage slipped up from sixty-five to seventy-five, from that to eighty-five. It jumped to a hundred; then to a hundred and twenty-five. It still crept higher, until it marked two hundred and fifty pounds pressure.

When it had gone twenty points beyond the safety-mark, the engineer opened his throttle.

Slowly the mogul responded to the heavy pressure in her cylinders. The lank of the trucks over the rail-joints presently became a roar that harmonized with the blast, and the smick-smack of the flying drivers told that their thousand-pound counter-weights were whirling along at the rate of fifty miles an hour.

Millburn, watch in hand, counted the minutes. Smiling into the faces of Johnson and

the man from Devil's Slough, he said to them: "I don't know but what we'll make it, after all. We must be gettin' somewhere close. I daren't risk runnin' by. You fellows fix the fire again, and cover up with the curtain, while I open the window so I can see where we are."

They fixed the fire and wrapped the curtain about them. They had snuggled under it on the floor when they felt the rush of the cold air sweeping from the open window. They shivered as they thought of the engineer sitting in the freezing draft, and often they called out to him, but on his assurance that he was all right, they would again lie down. In time they drowsed.

Somewhere, an hour or so later, Jonsson

awakened with a start. The train had stopped. He flung off the curtain, and, running round into the gangway, found the fire-box door cold. He craned his neck, and saw Millburn sitting in his seat staring straight ahead through the open window, into which no wind now roared.

"Millburn!" he called.

But Millburn did not stir.

The old fireman ran over and aroused his companion. Together they climbed up beside the silent engineer, and found him dead. There was a smile on his lips, as if his sightless eyes found a picture of comfort in the smoke that wreathed upward from the chimney of the one remaining house in Devil's Slough.

THE GOATS OF THE U. P.

THE Union Pacific Railroad has discovered a new use for billy goats, and every day at half a hundred stock-feeding stations on the line of the big railroad system, solemn goats with long white beards act the part of Judas, luring unsuspecting sheep to their doom. Little did the members of the Interstate Commerce Commission think when they made a ruling that live stock, *en route* from the great Western ranges to the packing-houses along the Missouri River, should not be kept aboard railroad trains for more than twenty-eight consecutive hours, that they would be responsible for the creation of a band of goats trained to ingratiate themselves into the confidence of innocent little lambs, matronly ewes, and stately rams and bring these down to their death.

But such is the case, and the Union Pacific Railroad has a flock of goats, each individual member of which can do better work along the lines for which it is trained than would be expected.

When the twenty-eight-hour law went into effect the Union Pacific found it necessary to build big feeding yards at numerous points along its line—in fact, these yards were installed about every twenty-five miles from end to end of the big system. During the shipping season that railroad brings hundreds of thousands of sheep from the great ranges of Wyoming, Colorado, Utah, Idaho, Oregon, Montana, California, and the Southwestern States to the packing-houses at Omaha. Under

the new law it was necessary that these sheep be unloaded, fed, and watered, and then reloaded every twenty-eight hours.

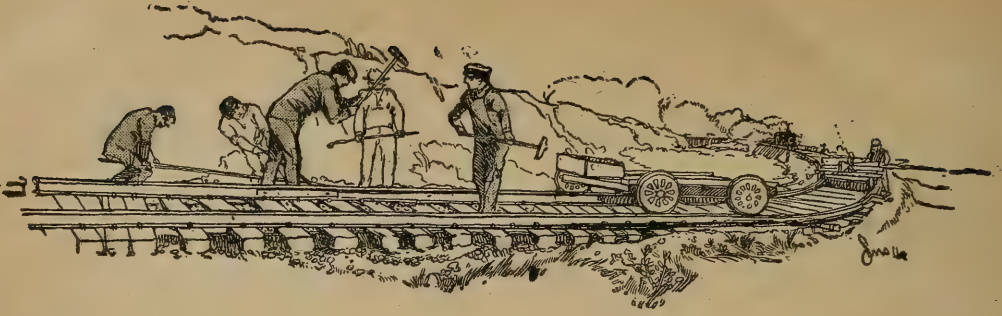
The railroad at first found it necessary to maintain a large force of men at each feeding station, it being found more economic to do this than to spend hours and hours loading and unloading a train. This cost money, and lots of it, but there seemed no means of avoiding the expense.

To-day, however, when a long line of stock-cars, each filled with sheep, draws up at a feeding-yard, a goat is sent up the chutes and into the car among the sheep. He quickly makes the acquaintance of the newly arrived animals, and then calmly walks out the door. True to the idea of following a leader, the sheep fall in line and march out behind old Bill.

When ready to reload, the goats are again sent among the sheep, with whom they frolic a few minutes, and then they start for the cars, followed by the sheep.

The feeding-yards are all equipped with electric lights so that cars may be loaded and unloaded at night, thus saving much time. When a train arrives at night, especially are the goats necessary. At such times they enter the cars when the sheep are lying on the floors, and butt the sleeping animals around until they are thoroughly awakened—and then they lead them out into the feeding-pens.—*Chicago Inter-Ocean.*





OLD-TIMER TALES—No. 7.

Small Beginnings of Big Railroads.

BY ARNO DOSCH.

RAILROADS, like all the other great factors of our modern civilization, underwent peculiar stages of evolution before reaching their present state of development. Some are apt to bring smiles to many of this generation, who find it difficult to reconcile twentieth-century wonders of steam and steel with the crude makeshifts of the past.

It is hard to imagine a great system like the Pennsylvania Railroad springing from the humble device of some timbers laid through the mud to form a roadway for a farmer's wagon.

How the up-to-date eagle eye would laugh if some one were to suggest that farmers be allowed to drive their teams to town over the railroad tracks, blocking all the freight and passenger trains, yet even this was once a daily occurrence on many big systems whose trains now run on mile-a-minute schedules.

The Wild Dreams of Early Railroad Promoters Whose Visions Grew to Realities after the Long Fight Against All Manner of Queer Opposition.

JOHN THOMPSON hopped out of bed one morning with an idea. It was one hour after daybreak on a chilly, damp day in the fall of 1809. The cold air blew up from between the cracks in the floor, but he did not mind. Since the first streak of

dawn he had been wondering how he was going to get his potatoes and turnips to Philadelphia over impassable roads, when all at once out of his waking dreams an idea struck him with an uplifting force that shot him out into the middle of the room.

Pulling on his boots, he waded across his

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slushy barn-yard and came to the public road, which was a quagmire all the way to the turnpike, and that was but little better. Instead of scowling at the knee-deep slough that passed for a highway, however, he smiled and cherished his idea.

A Road of Rails.

In a shed near by there were some rough-hewn timbers, and these he pulled out and dropped in two parallel lines along the road through the thick of the mud. Then he lifted the shafts of a cart and started the wheels over the tops of the parallel timbers. A month later he had built a track as far as the turnpike, and drove his cart easily down the middle, the wheels following the grooves.

The neighbors stopped to look at the contrivance, and chuckling contemptuously, whipped their plodding horses through the mire. But, as John Thompson beat them to town, he could afford to disregard their sniffs. In the hour of his triumph, he even ventured to predict that they would be hauling their produce to town that way before long.

He became so enamored of his idea that he talked of nothing else, and was dubbed a crank. He and his "railroad" became the joke of the community, and he was frequently regarded as being mildly insane. It made him an isolated man, but he did not seem to have cared much; though with his son it was different.

The son was a small boy in school at the time, and there he was made to feel the scorn that was shown his father.

He had spirit, however, and for weeks he came home every night with swelled lips and blacked eyes, until he had licked half the school and had been licked by the other half. Finally his parents withdrew him.

Listening to what his father said, he dreamed boyish day-dreams of building miles and miles of similar highways and vindicating his father. As he jogged along on the seat of a heavy cart, he even imagined an empire of such "railroads" that would control great cities, annihilate distance, and remove the curse of the country—bad roads.

It was only the day-dream of a boy without playmates, but it was the real beginning of the great Pennsylvania Railroad, with its 5,000 miles of track, its army of men, its 4,000 locomotives, and 164,000 cars.

John Edgar Thompson, the inventor's son, fared rather better than the rest. While he

was still growing up, the first excitement over railroads swept the inhabited part of this country, and even the farmers who had made merry over John Thompson's contraption began to see something in it.

The citizens of Philadelphia caught the fever and laid several similar roads. The State also saw their advantages, and established public roads built after a similar fashion, designating them "railroads."

The time soon came when all the farmers drove up to these various tracks with their wagons, and, getting them upon the rails as best they might, started for town.

Every morning numbers of them could be seen making for the city. In the afternoon, the tide set the other way. There were no sidings, and the whole caravan had to move in one direction at the pace of the slowest horse on the road. But, even at that, the new railroad was considered the latest and greatest wonder in the world.

Then the locomotive was invented, and Horatio Allen, the first of the many famous American railroad engineers, brought one over from England. Immediately, the State of Pennsylvania became excited over it, ordering one for its "railroads."

Pleased the Farmers.

When it arrived, the tracks were improved to support its weight, and the offer was made to haul wagons into town for a fixed fee. Some of the farmers took advantage of it, others did not, and the usual procedure for a number of years was a long line of wagons, drawn by horses, constantly breaking down on the track, followed by more wagons, drawn by an impatient, wooden-wheeled engine that had a bad habit of getting into difficulties itself.

It is hard to believe it now, but this kind of railroading went on from the early thirties to 1847, when it was decided that the State management of railroads was so unenterprising in the face of the great strides made in other parts of the country, that they had better be given over into private hands.

The apology for a railroad, known as the Philadelphia, Germantown and Norristown, which had grown out of John Thompson's idea, was bought from the State by the newly organized Pennsylvania Railroad, of which John Edgar Thompson was chief engineer.

A pretty girl who enjoyed the excitement of taking the first ride behind a locomotive in this country is responsible for another of the big railroad systems. About the time

that John Thompson was receiving his earliest vindication, she was married at her home in the Ramapo Valley, to the westward of New York, and, with Henry L. Pierson, her husband, went on their honeymoon to Charleston, South Carolina. They arrived just as the first few miles of the first railroad in this country had been completed, and heard nothing but talk about the locomotive which had been imported and was about to hazard a run.

As soon as the bride heard about the locomotive, she set her heart upon riding in one. To her husband and all Charleston, it was as if a bride in this day should insist on making an aeroplane flight. But if anything is needed to prove that the young wife was actually pretty, it is that she had her way and took the ride.

After that, to travel from the Ramapo Valley to New York City by carriage was altogether too slow, and she cherished the extravagant day-dream of riding behind a locomotive to the metropolis.

She proposed to her husband that he secure her father's backing and build the railroad she desired, and she wheedled her father until he began to have day-dreams himself. The enterprise was slow in materializing, but in spite of failure, set-backs and constant shortage of funds, she urged them on, until twenty years later, she was able to realize her dream and rode from New York to the Great Lakes within a day over the Erie Railroad.

A Railroad That Paid.

Long before this historic event took place, Buffalo had been reached by the New York Central, a corporation evolved from the day-dream that railroads could be made to pay big dividends.

Like most of the roads of the early forties, it came out of the delirium of railroad intoxication in which the country was indulging; but, that it developed so rapidly into a connected railroad out of seven small, miserable, disconnected links, was due to the efficiency of the Syracuse and Utica Railroad, which paid handsomely from the start, attracting the attention of the first of the financiers who saw the value in combination.

All the towns from Albany to Buffalo had become connected in a haphazard way by rail, but the individual companies were all so poor that they could not have secured capital if it had not been for one road that ran on schedule, making ten to twelve miles

an hour, crowded with excursionists. Even as early as 1839, before the other six connecting links had been built, the Syracuse and Utica had been a paying institution, the first of the successful railroad ventures from a financial point of view.

It had but fifty miles of track, half a dozen engines and less than thirty cars, but it served as a nucleus for the Vanderbilt system with 2,829 miles of track, 1,894 engines and 70,000 cars.

Horses Versus Locomotives.

The beginnings of the Baltimore and Ohio is an even more engaging story. What made the Erie and the New York Central possible was that the interior needed an outlet to the sea.

The same situation confronted the country to the westward of Baltimore, only, instead of the country worrying about it, Baltimore took the burden on itself. It fostered a plan of laying a railroad across the Alleghanies to the headwaters of the Ohio and into the western country which was just beginning to receive its first settlers.

New York was laughing at a ridiculous individual who tried to get backing for a railroad south of the Great Lakes to connect with the navigable waters of the Mississippi, and was inclined to regard Baltimore's dreams as scarcely less ludicrous. These dreams would have come to little, if the original plan had been adhered to.

The locomotive had been tried out at Charleston, and even had been run at night by the light of a pine-knot on a flat car in front, but Baltimore was skeptical and was quite certain that horses would be sufficient.

It is no wonder, however, that they fought shy of engines. In spite of a few successful trials, four of the best-known English engineers had just held a conference in London at which they decided that the locomotive was impracticable. As an alternative, they urged stationary engines, much like the present donkey-engines, with a long rope attached to a revolving drum, a scheme something like the cable road.

Any mine in the country to-day has a tramway superior to this first attempt of the Baltimore and Ohio. It was nothing more than a pair of wooden rails for wagons with grooved wheels to be pulled across the country by horses. The cars held but a few bushels and it was really about as cheap to use the highway, but Baltimore took more pride in that piece of track than it

ever has since, although it has stretched out until it is now 3,447 miles long, and has in its service 87,445 cars and 2,000 engines.

But, as if to make up for its original lack of faith in the powers of the locomotive, this road was the first, seventy-five years later, to see the value of the Mallet compound locomotives and increase its freight-hauling capacity by fifty per cent.

A Track That Disappeared.

The Wabash got its start because, in the winter of 1846-1847, the farmers of Central Illinois needed runners for their sleighs and wood for their fires.

The first railroad agitation had swept through Illinois several years before, and out of a hundred schemes for railroad building only one had materialized. It was called the Northern Cross, and was built by the State on the assumption that it was going to settle and civilize Illinois. It was a road of some pretensions when built, but served no purpose whatsoever.

It began nowhere and ended nowhere. It opened no communication to the outside world, and could do no greater service than haul farm crops to miserable hamlets that had no need of them. In those days, Chicago was only a small town, and the rest of the State just missed being a wilderness.

Nevertheless, the Northern Cross had been built. The whole State had been taxed far beyond its possibilities to pay for it, and an attempt was made to get some good out of the money.

A locomotive was imported, and it was run for several summers. Then came the winter of 1846-1847, when the strap irons laid along the wooden rails began to disappear, making the seasoned timbers beneath an irresistible temptation to the fire-wood hunters.

In the spring, there was no longer any track, and the State officials, throwing up their hands in despair, put the Northern Cross to the block.

Even at this dark moment, the dawn of the great railroad geniuses who built up the country was at hand, and the first of these—N. H. Ridgely, of Springfield, Illinois—was on hand to bid \$20,000 for what remained of the Northern Cross. This was a ridiculous price, as all that was left was the right-of-way. However, this was all that Ridgely needed to serve his purpose.

To the eastward, two railroads, which

sold stock under the ambitious titles of the "Toledo and Illinois," and the "Lake Erie, Wabash, and St. Louis," had built a few miles of track. What they needed to breathe enthusiasm into prospective stockholders was a few miles of road-bed in Illinois, so that they could publish a prospectus stating that they were building in three States at once. It sounded well, and it was even easier to get money out of people's pockets then than now, so they merged the three roads into one. It was named the Wabash.

The Rock Island planned to go to the Pacific coast, and was the first of the proposed transcontinental railroads to get a real start.

This was never accomplished, but if the attempt had been for a lesser goal, it might never have had two terminals.

The Rock Island was only one out of 800 similar projects to connect Chicago with the Mississippi. Only a few of the others even got a start, and most of them began and ended in small stretches of isolated track which were finally torn up by the farmers.

The Rock Island, however, proved so successful in its limited field that its directors scoffed at the wild plans of its first promoters, and when Major-General Grenville M. Dodge went before them a few years later to secure their support in an extension of the Rock Island to the Pacific, they refused to listen.

Would Not Heed Promoters.

In his book, "How We Built the Union Pacific," he says, in telling of this meeting to which he went, fired with enthusiasm:

"The secretary of the company read my report, but, before he was half through, nearly every person had left the room."

With great self-restraint, General Dodge adds:

"I could see that there was a lack of faith and even interest in the matter. One of the directors said in the outer room that he did not see why they should be asked to hear such nonsense."

So the Rock Island missed its chance of becoming the first transcontinental railroad.

Contemporaneous with it, and based on a scheme hardly less airy in its way than the purposes of the original Rock Island promoters, was the inception of the great Chicago and Northwestern.

In the year 1836, there were two towns in northern Illinois which were striving for

leadership. That one would become a great city every one was convinced. Of the two, Chicago had the best start, with 1,500 inhabitants; but almost due west, within a stone's throw of the Mississippi, was Galena, boosted by real-estate boomers who were always in Chicago selling Galena town lots.

A Real-Estate Railroad.

To help along their scheme, they went to the Illinois Legislature and received a charter for the Chicago and Galena Railroad. Then, with a great flourish and much selling of lots, they set about surveying a railroad and ran ten miles out of Chicago.

It was not necessary to go farther. The people in Chicago would buy the lots on that. But, shortly, interest began to flag, so they did the next most conspicuous thing, laid tracks on Dearborn Street.

In those days, the favorite way to build railroads was to elevate them on timbers and so escape the unevenness of the country, rather than attack the ground with scrapers and reduce it all to one level. So these busy promoters constructed an elevated track down the center of Dearborn Street, not that there was any necessity for it, Dearborn Street being as level as the floor, but because it made more of a show.

With that grand spectacle to conjure with, the sale of Galena lots was so easy that the promoters soon rid themselves of all their holdings and, having no further use for the incipient railroad, left it as it stood.

For eleven years, until 1846, it blocked the main street of the town—a nuisance and an eyesore.

Just as the Wabash and the Rock Island came out of nothing but frenzied minds into great railroad systems, the Chicago and Galena was actually surveyed its whole length, and work was begun which has not stopped yet.

By this time, a number of small towns had sprung up northwest of Chicago, and it was thought best to take them in. The route from Chicago to Galena was, therefore, in the shape of an interrogation point. As work progressed, Galena and the country to the westward was rather neglected, with the result that, while the Chicago and Northwestern has spread itself over the whole of the territory for which it was named, to go to Galena over it, even to this day, requires a roundabout journey over the interrogation-point route.

There had been a lot of wonder and speculation about a Pacific railroad even before the Rock Island got started that way, and the dreams grew in number until every town east of the Rocky Mountains which had more than a dozen houses regarded itself as the eastern terminus of the proposed Pacific Railroad.

In the same way, each of the great trans-continental lines afterward built took form first in the mind of some dreamer.

Josiah Perham appeared in New York in 1850, his shrewd face glowing with Yankee enthusiasm, and announced that he was about to sell a million shares of stock in the People's Pacific Railroad, for which he was about to get a charter.

If a man of Josiah Perham's type undertook to-day to sell a million shares in an airship line to London, urging people to buy for patriotic motives, he would not be treated with more contempt than the solid business men of New York accorded Josiah Perham. Moreover, he would probably be denied the use of the mails, and if he pursued Congressmen and made the life of the President miserable for fourteen years in his desire to receive a government charter, he would be barred from Washington.

What Josiah Perham thought of doing seemed no less mad. National enthusiasm was bubbling in those days a little more violently than at present, but the project was no less chimerical to financiers.

Perham was rich for his time, having made a fortune arranging excursions on the early railroads, which he spent before he was able to secure a charter.

So great was his enthusiasm, however, that he even got the foremost Congressmen of his time to speak for his project. Finally, in 1864, after several other Pacific roads had been chartered, he secured the name of Abraham Lincoln to a paper that made his plan possible.

The charter, once launched, was too valuable to be allowed to die, and although Perham himself did not live to see his dream realized, the People's Pacific Railroad finally evolved into the Northern Pacific, and was built under that name.

The Origin of the Missouri Pacific.

But even while Perham was making his first attempt to secure a charter, the city of St. Louis, with 90,000 inhabitants, started a railroad westward under the name of the Missouri Pacific. It had the far goal in

view, and seemed for the time to have the best chance of reaching it, but it was many years before it touched the Rocky Mountains.

Still that line, stretching out over the prairies, was destined to become one of the largest railroads in the country, with 7,170 miles of track, more than 1,000 engines, and 50,000 cars.

It was one out of hundreds. There was at least one transcontinental railroad planned for each parallel of latitude. But less than half a dozen of them had behind them dreamers who could make their dreams come true. Among them was Abraham Lincoln.

It has only recently become known that Lincoln belonged among the empire builders, and decided the fate of the first transcontinental railroad with the cities that have grown up along its tracks. A chance meeting between Lincoln and General Dodge brought this about. In the book recently published and quoted herein, General Dodge shows how Lincoln first pictured the rails laid over the emigrant trail, and afterward decided that route for the Union Pacific.

Back of it is a little history. When the Rock Island gave up its Pacific projects, it lost the services of its most daring engineer, Peter A. Dey. He decided to go farther on his own account, and, crossing the Mississippi into Iowa, began the survey of the Mississippi and Missouri Railroad. Logically that was the beginning of the Union Pacific, although it afterward became part of the Rock Island. With Dey was Dodge.

The First Transcontinental Line.

All sorts of surveys for railroads to the Pacific had been made, but Dey and Dodge had an idea that the best one lay due west of where they were working. Dodge was the more foot-loose of the two, and he went forward to investigate, crossing the Missouri River at Council Bluffs, in 1853, to the spot where Omaha, then an Indian camp, now stands.

Dodge crossed at that point and determined the future of Omaha and the route of the Union Pacific. Dodge felt that he was making history, and he became so anxious to reach the Platte, to see whether it was really the feasible route he believed it to be, that he left his escort and struck out across the prairie by himself into what was then a hostile Indian country. Afterward the Union Pacific was laid almost in his pony's tracks.

During the six or eight years that Dodge

had made his headquarters at Council Bluffs, he worked farther and farther west until he had mapped out a route through the Rocky Mountains.

Returning, in 1859, from an expedition, he was sitting on the steps of the old Pacific House, in Council Bluffs, when he was approached by a tall, kindly stranger, who introduced himself as a lawyer from Illinois.

The stranger asked several questions about the Western country, and Dodge answered until he had imparted all the information it had taken him years to get. But he thought nothing of it at the time, as he was accustomed to explaining the prairie country to strangers, and the matter would never have been recalled had it not been for an incident which occurred in the midst of the Civil War, four years later.

Lincoln Maps the Route.

Dodge, the engineer, had become General Dodge and was in command of a district in Mississippi, when, one day, he received a message from General Grant to proceed at once to Washington and report to President Lincoln.

In the heat of war, General Dodge had done a number of things that he feared might not look well from the President's point of view, and he anticipated trouble. Wondering all the way what was in store for him, he had no inkling of the purpose of the journey until he arrived. Then, as he entered the White House, he was greeted cordially by the Illinois lawyer with whom he had been so friendly and confidential.

The former conversation was brought up immediately, the President telling General Dodge that it was responsible for the present meeting. Forgetting for the moment the cares of war, Lincoln's face lighted with enthusiasm, and he asked to be taken once more—on a mental tour—over the prairie country west of the Missouri. Then he told General Dodge that the bill for the construction of the Union Pacific had passed Congress, and it was his duty to determine the route so far as it concerned the eastern terminus.

"Several towns on the Missouri River," writes General Dodge, "were competing for the terminus, but Mr. Lincoln practically settled the question in favor of the location I recommended."

That location was Omaha, only a few years previously the Indian camp from which Dodge turned his pony's nose westward.

The Union Pacific was so named because

it was to bind the Union together, but it realized its purpose the sooner on account of the Central Pacific, which met it half way, the work of another dreamer—Theodore D. Judah.

Of all the prairie and mountain country, no part lured the early voyagers more than the fascinating region southwest of Kansas—past the bloody Point of Rocks over the Santa Fe trail into what was then known as the Great American Desert.

Visions of the Santa Fe.

Even to-day, in spite of the fact that it is crisscrossed with railroad tracks, it has the same strong appeal to the imagination.

The man most interested in its possibilities in those days was Colonel Cyrus K. Holliday, one of the founders of Topeka and a Kansas pioneer. At one time, his cabin was the farthest west.

Standing in his cabin-door, he would look down the broad Santa Fe trail, and, day by day, it grew upon him that there was a route for a railroad. The soil of Kansas had hardly been turned, and buffaloes still roamed over it, but there was no stopping Colonel Holliday and his day-dream. One day he took a last look from his cabin-door and started East to get money.

Nine years he talked and planned before any one would listen to him. The Union Pacific and Central Pacific, which had been visions when he began, were almost completed before he received the slightest attention.

Then, in 1867, he found men who had the courage to build the first thousand miles, but it was many years after before the whole of his dream was realized and the Santa Fe circled through the mesas to California.

With the Union Pacific across the central Rockies, the Santa Fe circling from the south and the North Pacific in the middle north, another of the great transportation systems soon to be brought to life was the railroad of the far Northwest.

Before any of the other roads had taken form, even when Josiah Perham was just beginning to pave the way for the Northern Pacific, James J. Hill went into the Northwest. At the time there were only six thousand white people in Minnesota.

When he had been there only a few years, the St. Paul and Pacific, destined to become the Great Northern, was projected, but did nothing to make itself worthy of the name until twenty-five years later when he found that it was ripe to build. Even in the fifties

he had his vision of empire, and though he had to wait, he is the only one of all the dreamers who made his dream come true from beginning to end.

When James J. Hill first turned his horse westward from Chicago to the prairie grass, the country was in need of cruder forms of transportation than railroads. For more than twenty years his time was absorbed in getting supplies as quickly as possible to settlers, who sent out their farm produce in an ever-increasing volume.

Sledges, carts, and steamers that could travel in the shallowest water, served his purpose then, but his thoughts were still far afield and as soon as the settlers began to push into the interior far enough to justify it, he wanted a railroad.

His interests had grown into the north along the Red River when, in 1883, it came to him that his earliest dreams of an empire in the West were ready for realization.

Selling out all his other interests, he centered his attention on the St. Paul and Pacific, and secretly surveyed a route to the Missouri. Long before work had progressed that far, however, his schemes had carried him across the Dakotas to Montana and beyond, and before any one realized what he was up to he was rushing his tracks up the first stretch to the mountains.

A Fight Against Odds.

When it was learned that he had nothing less in view than another transcontinental railroad, every hand was turned against him. Stockholders rebelled, other railroad men scoffed at his wild dream, and, for a time, even his right-of-way was blocked by the government. But he shook his fist in the faces of the New York bankers who tried to interfere, and told the stockholders that he would not stop until the board of directors made him. That could not happen before the next annual meeting.

It was a boast. The directors also turned on him.

Then came the crucial moment of his life. Either his plan would tumble about his ears, leaving his dream forever unrealized, or it would receive an impetus that would carry it through like a whirlwind.

Taking the meeting of the board by storm, he locked the door behind him and did not permit a man to leave until, by the power of his personality and the logic of his argument, he had made the board see the situation with his own eyes.

PRESIDENT OF THE LINE.

BY JOHN WELLSLEY SANDERS.

In Planning Deeds That Are Dark
the "Heathen Chinees" Is Not Alone.

SYNOPSIS OF PREVIOUS CHAPTERS.

VINCENT WILSON, having risen from the apprentice shop to mechanical superintendent of the Mainland System, has discovered what he believes to be a leak in the affairs of the company, and criticizes to President Harvey Jones the action of the board of directors on voting \$20,000 for certain purchases. Wilson visits a former employee of the Mainland System, "Doc" Ferguson, who imparts to him the information that Kaintuck, a former friend of both, had developed leprosy and been sent to the leper settlement at Molokai. "Kaintuck" was betrothed to a beautiful girl, Meriel Planquette, whose address Wilson is very desirous of obtaining from "Doc." "Doc" refuses to give this information unless Wilson pays him \$5,000. Meriel Planquette, after "Kaintuck" had been sent to the leper settlement, married John Toylmore, formerly New York representative of the Mainland System, who shortly after their marriage had been killed in an automobile accident. She now has many suitors, among them Bertrand Clivers, an elderly broker, and Jimmie Winters, young and impetuous. She loves the latter and promises to marry him, but is won over at the very last moment by Clivers and leaves with him for Europe. Instead of going to Europe, however, Mr. and Mrs. Clivers register at the Continental Hotel on Fifth Avenue, where Winters discovers them. He is mad with jealousy and hatred for Clivers and forces his presence on Meriel as she enters the hotel alone. He reproaches her and threatens her husband. He overhears two men in conversation in the hotel lobby, and as they let fall the word "Clivers" he determines to know more about them. One of them, who proves to be Vincent Wilson, is stopping at the hotel, and to him Winters sends up his card. He is received, and explains the reason of his intrusion. Wilson is eager to hear his story and, in turn, tells of his interest in the Clivers. Winters is persuaded to introduce Wilson to Meriel as he is lunching alone, her husband having left for Louisville to be away a few days. Wilson is also anxious to meet Clivers, and arranges with Winters and Tom Tracie, a detective, to be in the hotel lobby on Sunday evening at the hour Clivers is expected to return. On his arrival he is recognized by Wilson as Stephen Blander. However, it is not in Wilson's plan to let Clivers know he has been discovered, and so he greets him by his real name, Blander, and seemingly takes it for granted that he is in New York on a visit. Blander is suspicious of Wilson, but can find no foundation for his suspicion, until he ascertains that he, Wilson, is stopping at the Continental, and this convinces him that he is being spied upon, and he determines to get Wilson out of the way by fair means or foul. The fear of discovery, however, is so great that an attack of apoplexy seizes him and he is confined to his room for several days. In the meantime, Wilson has returned to Louisville, leaving instructions with the detective to keep Blander under surveillance, and relates to President Harvey Jones all that has transpired. Blander declares that Wilson must be put out of the way.

CHAPTER XIII.

A Journey Down-Town.



VINCENT WILSON must pay for this. I cannot afford to lose!"

These were the first words on Blander's lips,

as he arose the next morning.

Even as he dressed and took the spare breakfast that he had sent up to his room, he kept repeating:

"Get Wilson out of the way! Get Wilson out of the way!"

He wanted to burn the desire into his mind. He wanted to fix it so steadfastly on his purpose that he would not quail at the last moment.

"Get Wilson out of the way!"

About half past ten o'clock, he called to his wife and told her that he was going down town.

"And, my dear," he added. "I may have to run over to Philadelphia for a day, to look over some bonds. I may stay one day or

Began in the May Railroad Man's Magazine. Single copies, 10 cents.

two days—I don't know. In any event, make yourself perfectly happy. Take all the motor rides you want, go to all of the theaters, and, if you are lonesome, call up some of your friends."

"Do you have to be gone long?" asked Meriel, half interestedly.

"I can't say, my dear. I hope to close up a lot of my affairs soon so that we can take a long trip and be together for more than a week at a time. You see what it is to be married to a financier who must fight like a tiger for his interests. Now, deary, don't be lonesome. If you want any money, the hotel will advance you any amount." He moved toward the door.

The wife kissed him unfeelingly, he waved a hearty "good-by," and the door closed between them.

Blander left the hotel unobserved. The lobby was crowded at the time. The busy clerks did not see his hasty exit, nor did Detective Tracie, who had been keeping a silent watch on the main floor as a matter of precaution.

Blander hailed a taxi-cab and was driven to the ferry station at the foot of Cortlandt Street, ostensibly to take a Jersey ferry. There, he dismissed the cab, and hurried into the ferry-house—just as a bluff.

He looked out to see if the taxi driver were waiting for another fare, but, to his satisfaction, he had departed.

Blander didn't want to take any chances. The game that he had begun to play was a desperate one. Millionaires and other men whose names are familiar to the inner circles of Wall Street and other places where the great industrial affairs of the country are discussed, do not—as a rule—go about planning the murder of a fellow-being.

When he left the ferry-station, he walked briskly across the city—through City Hall Park by Park Row—the home of the great New York newspapers—to the entrance to Brooklyn Bridge and onto the Bowery.

He had gone along that thoroughfare about three blocks, when he started on an eastern tangent, to a certain tenement just beyond the Cherry Hill district and not far from the North River.

In this tenement lived "Brown" Taber, so-called because of the peculiar hue of his brown hair and eyes and the sallowness of his complexion. The three mingled in such a noticeable coloring, that, from his boyhood, he had been known as "Brown" Taber.

Once, when he was called before a judge and jury, for placing several and sundry

pieces of lead in the body of a policeman, who was trying to "take him in," he said that it was so long since he had heard his first name, he was doubtful if he knew just what it was.

He was forty-eight years old—big, burly, and strong. By trade he was a teamster—but for some reason or other, he seldom plied his trade. His employers soon found him out, and they wouldn't take chances with a man who had been publicly declared a thug and who had a prison record as well. On many occasions, he had been a "front-page feature" in the newspapers. He lived with his old mother—a white-haired, gentle soul, who was slowly going to her grave because of her son's wickedness. But his love for her was the most notable topic of "the block," as the tenement in which they lived was called.

On more than one occasion, it had saved "Brown" from jail. It was the old mother's hope and prayer to reform her son. Ever since he had come home from Sing Sing, she had pleaded with him to stay in the right path—at least, so long as she lived—and, with the aid of Father Flynn, whose untiring devotion to the sinning souls of his parish dominion was heroic, she had partly succeeded.

"Brownie"—that was her pet name for him—"Brownie was always a good boy," she would say through her tears, "until the father died—and then I could not hold him."

But "Brown" had promised to reform. He had given his old mother his word that he would be good. With some little aid from Father Flynn, coupled to the few hundred dollars which, in former years, she had saved from her husband's earnings, they would go to some new town in the West and begin anew.

Poor little woman! Her mother's heart beat with youthful joy at the thought of this. She wanted her boy to have a clean chance. Once away from evil associates, she could watch over him—for even though he was a grown man, a thug, and a prison bird, he was her own flesh and blood.

Such is the love of a mother.

CHAPTER XIV.

The Interview with "Brown."

THERE was a knock on the door of the Taber tenement. "Brown" and his mother were sitting in their little living room. They looked at each other queerly.

The knocking was new and strange to them. They knew the quiet, friendly rapping of Father Flynn, they could tell the different

announcements of the few friends that dropped in now and then—but, there was a stranger at the door.

The knocking was repeated several times, and each time in the most sudden and sharp manner as if the visitor wanted to be admitted without delay.

"I wonder who that can be?" said the old mother.

"Dunno," replied Taber. "Sounds like the knock of the last copper who come to pinch me."

"Better go and see, 'Brownie.'"

The man obeyed. He opened the door cautiously. Outside stood the heavy-built, well-groomed form of Stephen Blander.

It was unusual to see so hefty a swell in such a place as an east-side tenement. But Blander showed by his manner that he had no misgivings for being there. It was evident that he was not looking for a "lost-strayed-or-stolen" son.

"Is this Mr. Taber?" he asked, as politely as if he had been in his own club.

"Yes, sir," replied "Brown."

"I should like to see you on a little matter of business," said Blander.

"Brown" Taber opened the door a little wider, but as Blander caught sight of the old mother, he showed by his quick-changing countenance that he did not want a third party present to hear what he had to say.

"Come in," said "Brown."

"Thank you, er—" stuttered Blander. "But—if it is all the same to you—that is, the nature of my business is such that—I should like to see you alone."

"Oh, I see," said "Brown."

"You know of some place where I can talk to you alone?" Blander put the question very quietly.

"Brown" did not say anything. He simply reached to the little rack on the wall for his hat and coat, and Blander stepped back into the hall.

Mrs. Taber did not like the whole proceeding, nor did it please her to see her son put on his hat and coat and start off with a mysterious stranger.

She arose and went up to him. With more tenderness than usual, she put her small hands up to his great face and patted him as if he were an unruly baby.

"Where are you going, 'Brownie'?" she asked.

"Down to Joe Smith's—in the back room," he answered.

"Oh, 'Brownie,' I hate to have you go there. Why must you?"

"Well, I'd better see what this guy wants—and he wants to see me alone."

"Be careful, my boy, be careful. Don't let him lead you into anything—not even for any sum of money."

The old mother's eyes filled with tears. She looked into the eyes of her son, and repeated, "Not for any sum of money!"

"All right, mother, I promise."

"Brown" stooped over and kissed the little woman. He put his arm around her and he could feel her body trembling. It was clear that she foreboded that something had suddenly come into their lives to spoil her plan.

Oh, women are so keen in such moments as this. What gives them their intuition?—we men often wonder—and well we may, for they possess it just as certain as there is a sun and moon.

"Don't worry, mother. I know where I stand," "Brown" added, by way of assurance.

He joined Blander in the hallway. The little mother went into her bedroom, took the small crucifix from its place on the mantel and, holding it before her, knelt by her humble bed and prayed as she had never prayed before.

CHAPTER XV.

At Joe Smith's.

THE Tabers lived on the sixth and top floor of the tenement. The journey up and down stairs was a long one, and the stairs were narrow.

Blander led the way down and Taber followed. Neither spoke until the street was reached. Blander stepped over to the curb, looked cautiously about him, and then said:

"Taber, can I see you alone somewhere near here. I have a proposition to make to you—a business proposition."

"We can go down to the corner to Joe Smith's," replied Taber. "It's a saloon. There are some rooms in the back, and we won't be disturbed."

"Are you quite sure it is quiet—that is—er—I mean to say, we will not be disturbed?"

"It's the best place I know," "Brown" answered. "We can get in a corner, and nobody will hear us."

"Good!" ejaculated the financier.

The two started off. Joe Smith's was just around the corner—about a block and a half away. Neither man spoke a word, and Blander tried to keep just behind Taber so as the people in the street would not think that they were acquainted.

But Blander, with his Fifth Avenue dress and manners, was a queer sight in those parts. His kind seldom appeared in the precincts of Cherry Hill except when they went a slumming, and then they were usually hailed with such a volley of ancient eggs, dead cats and tin missiles—which the rising generation of he Hill kept for that particular purpose—they seldom made a second visit.

Blander knew that he was being observed. He might be taken for a landlord, he thought, but little did he know that landlords are the most unpopular of all human beings in that section of the metropolis. Or, he might be a philanthropist—

Just as he was deciding which he would be, Taber turned into Joe Smith's. Blander was a little surprised and hesitated at the door. But this was no time to waver. He mustered up courage, and the man who had been used to the cafés of rich clubs and gay hotels; found himself inside the most ill-smelling "joint" in all New York.

The fumes of stale beer and whisky almost suffocated him. The hangers-on—reeking with bad liquor inside and the filth of idleness outside—looked up at him, and one or two even began to jeer.

Joe Smith was behind the bar. He saw Taber speak to Blander and point to a room in the rear of the place, and he knew that something good was going to happen.

That was why he yelled, "Shut up, you four-flusher, or I'll throw you out!" to one half-drunk individual who had spent his last cent in the place the night before and who had suggested that the newcomer be asked "to buy."

Taber pulled up a chair to a table, motioned Blander to be seated, and then took a chair himself.

"What will you have?" asked Blander, knowing that it would be necessary to patronize the place.

"Beer," replied Taber.

"So will I," said Blander.

"Two up!" called Taber through the door. Presently, Joe Smith came in with the drinks on a tray, and he took the financier's quarter and his request to keep the change with undue civility. As he went out, he closed the door.

"Anything yez wants, jess call, 'Brownie,'" he said.

The room was small and badly lighted. It was stuffy and unclean. Blander wished he were in some other place, but his mission was as unclean as his surroundings, and, perhaps, it was all for the best.

"Brown" gulped his beer; Blander sipped his. Then Blander cleared his throat, gave the vest that covered his portly front a tug, and, leaning over toward the other man, said in a low, but clear voice:

"Taber, I have come to you to ask you to do a job for me."

Somewhere he had read that putting a man to death for money was frequently referred to as a "job" by the initiated.

"It is a job," he went on, "that requires the nerve of just such a man as you, and I understand that you are just the man to carry it out. I have read all about you—and know you by—er—reputation, so I feel safe in—er—talking to you.

"Before going any further, I may tell you that its successful—er—carrying out will mean a large sum of money—er—to the man who does it."

"What kind of a job is it?" asked "Brown."

Blander looked nervously at the door. He cleared his throat again, and continued speaking very softly.

"For some time, Taber, a certain man has been bothering me—that is, he has been trying to make it appear that I—er—that I am—that is, somewhat involved in certain money matters. Of course, it is only a supposition of his—jealousy—that's it!—business jealousy! He wants to make it appear that I am—involved—that I have not carried on my affairs—my money affairs—"

Blander was floundering hopelessly. Taber was looking at him straight and true, without a motion.

His sharp brown eyes were penetrating the financier. His face was fixed and sober. It was very evident that he would be obliged to tell Blander's story for him.

"Coming down to cases," said Taber, "you've got away with some dough that don't belong to you, and some feller has squealed."

That was what Blander wanted to say, but couldn't. He looked at Taber with blanched face. He wondered how Taber could have guessed it.

"An' you want to make me a proposition to 'croak' the guy what knows that you stole the coin? Ain't that it?"

"Brown" was not a man to mince matters. He was for coming straight to the issue without any diplomatic frills or unnecessary frippery. His frankness took Blander's breath away, for the moment.

"No. That is—well—I must admit it is something like it."

He took his handkerchief and wiped the heavy beads of perspiration from his brow and neck. He had showed his hand—now he must play the game to the limit.

"Yes, that is something—like what I would want you to do. He's not—a—big man," went on Blander, believing that the victim's size might whet the homicide's appetite.

Neither man spoke for a moment. The proposition had been made. Taber had brought it to a head quickly, and now he understood.

The man before him was evidently a rich man, and would pay the price—whatever it was. He was in a desperate situation, or he would not have come with such a proposition in his mind. But he would pay, he would pay—he was the kind who would pay!

And, what was one more notch in Taber's gun? He thought of the little mother and the promise. He could see her tears and feel her caress, and her soft and earnest words were ringing in his ears—but this man would pay!—he would pay more than the job was worth and the man who was brave enough to do the dirty deed would be rich and secure for life!

These and other thoughts ran through the brain of "Brown" Taber.

He could see himself and his mother living in luxury far from New York—and, too, he could see the cold, gray walls and the barred window of degradation. He could picture himself and his old mother with every comfort that the world could afford, and, too, he could taste the monotonous bread and water of the law-breaker.

Anyhow he asked, "How much will you give?"

"Five thousand dollars," said Blander.

"It isn't enough," replied Taber, with businesslike promptness.

"Five thousand dollars!" repeated Blander, slowly, with emphasis on the last word. "Why, my man, that will be in cold cash!"

"Cold cash on your part, and cold blood on mine," said Taber.

"What will you take?" asked Blander. He was showing signs of nervousness. It was evident that he did not want to "dicker" long.

"What will you give?" asked Taber. "it's worth a lot to you. You're the seller and I'm the buyer. You should know what it's worth to you."

"Suppose that we figure on—say—seventy hundred," said Blander.

"I'll have to think it over," said Taber. "I'll see you to-morrow."

"I wish that we could arrive at some definite arrangement to-day."

"You'll have to give me till to-morrow," replied Taber. "It's too ticklish a job. Look what stares me in the face—if I get caught."

"I am not oblivious to your nervousness in a transaction of this kind," Blander remarked; "but if you could facilitate matters by communicating with me, say, this evening."

"Well, make it to-night," said Taber. "I'll meet you here at eight."

"Suppose we say at the corner, at eight," Blander answered. "I should not like to come here without you."

"What's your name?" asked Taber, as the man started to go.

"My name?" said Blander, hesitating. "I will tell you that to-night—if you will excuse me until then."

He held out his hand, which Taber took.

"I just want to add," continued Blander, still holding Taber's hand, "that I will pay four thousand dollars on closing the agreement—that is, before any action is taken, and the balance immediately on—er—on—"

"On receiving the news that the guy is dead," said "Brown" Taber, with his customary method of coming to the point.

CHAPTER XVI.

Snakes in the Grass.

BLANDER and Taber walked into the street. A curious crowd had gathered while they were inside the saloon, for the appearance of such a fine-looking gentleman as Blander in such a region—especially when he had been closeted in the back room of a notorious saloon with a man who was known as one of the most desperate characters—was a matter for more than ordinary notice.

Blander eyed the crowd curiously, but those in the waiting throng knew that when "Brown" Taber curled his lower lip and said: "Chase yourselves!" and waved his hand in derision, they were to disperse.

Blander hurried on and was soon lost in the passing crowd. He made his way quickly from the Bowery, to that part of the city where men of his apparent kind walked and talked.

Taber walked around the square—and thought. He didn't want to go home until he had thought it all over—until he had sifted it over and over and over again in his mind, until he had looked at it from every conceivable angle.

It was a desperate step to take, but four thousand dollars would be handed to him when the agreement was made, and the balance when the trick was turned.

It was a lot of money. It would keep him from harm for a mighty long time, it would bring to his mother—

But then, he didn't want to think of her.

It would not be difficult to turn the trick. Merely lure the guy down to the wharf, on some pretext or other, some night when it was very dark. A quick sharp blow on the head—the body dropped into the waiting boat below—he would enter it so stealthily—then he would row out into the river—a weight would be tied to the feet—and it would be finished.

Thus he reasoned as he walked. Again he found himself in the vicinity of Joe Smith's. Before going home, he would go in and have one more drink—just one to sort of warm the cockles of his heart.

Joe was behind his busy bar drawing beer for a quartet of sailors who had just arrived on a South American bark, and were cutting loose with their money. When he had served them, he turned to "Brown" with a pleasant smile, and invited him to have a drink "on the house."

"Who was your friend, to-day, 'Brown'?" asked Smith.

"Oh, nobody in particular."

"Want you to pull off a little job?"

"I'm not saying anything, Joe."

"Well, you and a rich guy like that, don't sit in a room over one glass of suds for an hour, without somethin' happening. Did you roll him?"

"No, nothin' like that."

"Can't you let me know? Ain't I goin' to be in on it? You know if anythin' is pulled off in my 'joint' I'm entitled to some of the winnings."

"There was nothing pulled off, I tell you," said "Brown." "It was only a business matter."

"Not gettin' chesty, eh?"

Taber's first impulse was to let the man behind the bar have a piece of his mind and his fist, as well. That was his mode of settling an insult, but he was to bring Blander there that night, and he did not want to get into Smith's bad graces.

"No, I ain't getting chesty, Joe. I simply can't tell you anything about this—not now."

That seemed to satisfy Smith, so Taber swallowed his drink and started home. He climbed the long narrow stairs of his tenement more slowly than ever before. With

each step he weighed the problem in his mind, with each step he wondered just what he would say to the little woman who waited for him and who had been wondering what kept him so long. He stood on the threshold of the door for a moment, put his hand on the knob and mustering up all his courage, entered.

The little mother was sitting with Father Flynn. The good man was comforting her.

As soon as her son entered, she arose and held out her arms to him.

"Oh, Brownie," she cried. "I'm so glad that you have come back! I was afraid that something had happened to you, and I sent for Father Flynn so he could advise me."

The priest held out his hand, and Taber took it and smiled.

"I'm glad you are here, my boy. Tell me is there anything wrong?"

"Nothing, father," he replied. "A man called to see me, and we went out to transact our business."

"All right," replied the priest. "Now, be good to the little mother, and if you want me, be sure to send for me."

The priest departed, and Taber sat rather sullenly by the window. His mother came over to him, put her arm around him and sat on the arm of his chair.

"Brownie," she whispered. "What is it all about? What did the man want?"

"Nothing, mother—it was nothing. Don't ask me."

She knew he was lying. She knew that whenever he was in trouble or planning some miserable crime his whole manner changed. He became a brooding, sullen, disagreeable sodden thing, and all these elements showed plainly now.

"Brownie," she said again, more tenderly than before, "I am your mother. You promised me that you are going to be good. Something came into your life to-day, that makes you want to change. Tell me, tell me all about it, tell me everything—the entire truth."

"There's nothing to tell mother."

"There is, my boy, and, worst of all, you are not truthful about it. Come, my dear, my boy, my child, tell me."

She stood up, and tears came into her eyes. She put her hand up to her face to brush them away. He heard her sob and he looked up. All the mother instinct went out to him. The vibrant force of her nature played in harmony with his soul, and he said:

"Mother, sit down. I will tell you."

She resumed her seat, but her heart was heavy. She knew that if he had made up his mind, he would be hard to move. He took her hand in his and held it tightly for a moment, then said:

"Did you notice that man who called here, to-day? Well, he wants me to kill a man."

"My child, don't! Don't think of such a thing! What did you tell him?"

"I told him nothing. But there is a lot of money in it mother. Four thousand dollars cash when the agreement is made, and the balance, thirty-five hundred dollars, when the trick is turned. Think of that—

"No! no!" she screamed. "Such a thing must not be! You must tell me you won't! Think of me! You would kill me. Remember that, 'Brownie,' you would kill me!"

Then she came close to him and put her arms around him and pleaded with him as never before. Her poor, frail body shook with emotion and her tears fell hot on his face. Her words came quick, then faltered, and, at length, he could stand it no longer. He took her in his arms, and said:

"Mother, leave this to me."

(To be continued.)

AN ENGINEER CENTENARIAN.

October Witnesses the One Hundredth Birthday of Railroad Veteran Whose Son Is Eligible for an Engineer's Age-Pension.

ROCKING peacefully to and fro in an arm-chair, John Strange Reeves, probably one of the oldest engineers in America, passes each succeeding day in the shaded quiet of a comfortable cottage on South K Street, Tacoma, Washington, elated over the fact that next October eighteenth will be his one hundredth birthday, but disappointed because he has been unable to see Halley's comet for the second time during his life.

Living with a bachelor son and a housekeeper, he enjoys life to a marked degree, keeping his custodians busy watching him all the time, because he refuses to realize that his mentality is younger than his physical strength, and often wanders away from their watchful care.

Reeves comes from Pennsylvania Dutch stock. He was born at Wilkesbarre, Lucerne County, Pennsylvania, October 18, 1810, and is the father of fifteen children. The oldest living son is now seventy-two years of age. All but four of the large family of children have died. Through the survivors Reeves can trace five living generations. He has twenty-eight grandchildren, eleven great-grandchildren, and one great-great-grandchild living.

"Brownie," she said, in one last effort, "I will send for the police and have you arrested, if you do not promise me at once; and, furthermore, if you leave this house to-night, I'll call in the officers. There is nothing I won't do, 'Brownie,' to prevent this; so if you value your life and mine you can act now, but you shall not leave this house to-night unless it is over my dead body."

Small and weak as she was, he could see that she was determined. Somehow or other he didn't want to oppose her. It was mighty hard to be good in the face of such temptation. The call of all that money was sounding in his ears. Perhaps he could do it without her knowing it, but as he looked at her standing there in her misery, something came into his heart and held him back.

However, at a few minutes before eight o'clock that night, "Brown" Taber met Stephen Blander on the appointed corner, and a few minutes later, they walked into Joe Smith's place.

They entered the same little room, and Smith came in and took their order—and closed the door.

"Providence has been very kind to me," he says, "though I have had some mighty hard knocks at times. I have never been really sick for a day, but I met with several accidents which laid me up at times.

"Until I was sixty years old, I was a railway engineer, and made many records while taking locomotives in and out of Cincinnati. Before that time both my hands were injured—you can see they are crippled now.

"I never drank or smoked, but I have chewed tobacco for a long, long time. I always went to bed early and got up early and lived regularly. I have not been a vegetarian or dieted strictly on anything.


"My oldest son, John, is a railway engineer on the Gould system in Indiana. He's run engines there for more than fifty years, and some time this year he will be pensioned off, and he is coming to see me."

Thirty years ago Reeves met with a second accident on a locomotive and his skull was pierced by the sharp end of a large oiling-can. An operation was necessary, and at that time his skull was trepanned with a silver plate.

A CORNER IN COYOTES.

BY R. K. CULVER.

Fresno Smith's Bright Idea Turned Out to Be a Skin-Game in More Ways Than One.

OMETIMES," said Fresno Smith, "I'm inclined toward a belief that there's something supernatural about coyotes, but, maybe, I'm mistaken; it may be only my imagination. I never did take much stock in spirits, and yet when I hear coyotes unloading their funeral song on a dark night like this, I can come mighty close to suspecting that the dead do return and make noises."

At this point, Fresno Smith kicked a dry branch on the smoldering fire and peered over his shoulder into the pitchy blackness, whence there came a series of quavering, melancholy howls.

"Yes, sir, kind of prickly down the spine; that's the way they make me feel. Perhaps I never mentioned it to you, but another wise man and myself, a very long time ago, got mixed up in a deal in which coyotes figured strong. We learned considerable that time about humans and coyotes. The other wise man knew more than I did, to begin with.

"He was a Solomon on wild things. He kept cases on 'em all. The way he could grab off fancy Latin names and hang them onto anything from an ant to a buzzard, was a tribute to nature. I tell you it was fine. Now my strong point was human nature, so we got together on a scheme that took both kinds of information.

"But let me back up just a minute till I tell you something more about old Solomon, because he was the boy who started me to working out my plan. He collected specimens and shipped 'em C. O. D. to Eastern points, some alive and some skinned, with tags tied to their hides.

The old professor was a wizard on ways and means of separating from their natural haunts all such parts of nature as were alive and loose and valuable to parks, museums

and menageries. He had all other parties that I ever met sewed up and looking foolish.

He took orders for everything along the line, from a blue-tailed skink, which is a kind of lizard, to a California condor, which is some bird that flies high and is hard to coop. This Solomon party, he made good right along.

"One day, I met him in the hills, just beyond the rolling country, where I was loafing on a grub-stake, making motions with a pick and shovel, now and then, whenever anybody happened to show up. He wandered in, carrying a butterfly net and a line of talk about the scarcity of scorpions and tarantulas in that section as against the large crop of the previous year.

"That is all I've got thus far,' says he, opening one of those carpet-bag valises and exposing to view about fifteen fruit-jars full of preserved snakes, scorpions, and big hairy spiders, along with some blue-bellied lizards and a few horned toads. I sprung a few old snake yarns on him and we got acquainted fine. I found out, as I was telling you, that he knew some things.

"After a time I says, 'Professor, in the course of your adventures and pursuit of general information, did you ever happen to get next to the habit of the coyote?'

"Which habit?' he says.

"The only one he has that counts,' says I. 'The habit of being heard and noticed a good deal more than is necessary in a sheep country, and without ever stepping on the pan of a trap, or getting in front of a .44.'

"He then informed me how he had once fooled a noble specimen of 'Canis latrans, or prairie-wolf,' as he called it, by means of a lame jack-rabbit and about four-bits' worth of wire fencing.

"But there is a far more scientific way of capturing the wily beast,' says he.

"Come across with it," I says. "You interest me; I've got a little scheme that's looking bigger every minute."

"Then he went on to tell me that a pick and shovel and a stick of giant powder was the real surprise to spring on a coyote when you got his home address, with no spider-webs across the opening."

"Dig him out," he says; "but first you have to find where he resides."

"Professor," I says, "Fate has thrown you and me together. This old State of California is pestered with those yellow sheep thieves. It offers real coin for coyote scalps. Of course the bounty is away too small just now, but it will be raised if this *ne plus ultra* scheme of mine pans out the way it ought to. Coyote scalps will be quoted at five bucks apiece when we get enough of them corraled and after I've worked along the lines I will expose to you directly."

"The only trouble with coyotes is that they've been neglected. They don't possess the reputation for destructibility and rapid increase which is coming to them. All they need is advertising. Leave it to me. If you come in on this deal, you'll get one-third of all the profits, and it's easy money—very easy."

"Well, I talked the old boy blind, and it wasn't long before he had agreed to help me collect a bunch of coyotes for my coyote ranch. It was feasible, all right, and the proposition looked honest if you didn't glance at it too close."

"I took my old mule down to Bakersfield and came back with two hundred yards of wire fencing, out of which I made a pen around a big rock-pile on a sunny slope. When I had sunk the fence three feet and leaned the top in toward the center, I had a coyote-tight corral and was ready for the breeding stock."

"Here was where old Solomon got busy. He would find a likely spot, and then he'd take a piece of that wire fencing and make a six-foot circle, bending in the ends almost to the center, leaving a little runway in between. Inside of that he'd tie a live jack-rabbit by one leg."

"The coyotes would claw around the outside of that circle till they came to the opening, and then they'd just naturally

sift in the same as they'd go through a piece of sage-brush. Sometimes we'd find four or five in there in the morning, circling around the inside of that deception and shooting past the opening and against the other side, after they had followed up one of those curved ends at a rate of speed which a coyote always uses when he's scared. It used to make me laugh to see the way they'd fail to find that exit."

"But after a while one did accidentally get onto it, and he seemed to pass the news around, so we had to give that idea up. There was nothing to it then but to find where they hid in the daytime and to dig 'em out. And let me tell you, friends, if you've never mined coyotes, you've missed considerable excitement."

"Next to collecting rattlers with your bare hands, digging out coyotes is the most playful and nerve-quieting sport I ever did enjoy. When you begin to see the two green lights at the bottom of the hole, you spread your wire sack over it and shove a piece of lighted pitch-pine down in among the animals, and there's something stirring presently."

"I remember one old yellow dog got up so much speed, he tore right through the wire



"HE WAS A SOLOMON ON WILD THINGS."



mesh, taking with him in his teeth a piece of the professor's old felt hat. But we didn't lose one often, and inside of a month we had the corral stocked up, and then the food supply began to worry us.

"For a while I knocked jack-rabbits over with a .44 and kept the pen from starving on our hands. I got so I could pick a rabbit off at a hundred yards, no matter which way he was headed, nor how fast; but shucks! what was the use? I didn't have a Gatling gun, and those coyotes, they were always running up and down that fence half starved.

"One day I got to thinking about old man Bently, tending to his flocks and herds, up on the grazing land a few miles north, and also of the fondness which a coyote has for sheep. To tell you the real truth, this was not what you would call a new idea with me. Away back there, when I framed the deal up, it had occurred to me that a pack of intelligent coyotes, sufficiently starved and turned loose in the right locality at the proper hour, would help to raise the price of scalps.

"In time the sheep men would set up a holler that would get around to Sacramento where appreciations came from. Then I would take the professor up that way and arrange for him to give a little lecture before the right committee, on the destructive and evasive habits of coyotes, their annual rate of increase, and a scientific forecast as to the future of the sheep industry being swallowed, hide and all, by the increase in coyotes. I

had heard old Solomon talk some about evolution and the survival of the fittest, and a lot of stuff like that, and I knew he could make good.

"That night I picked out 'Prince' and 'Wolf,' a couple of big, half-starved coyotes that jumped against the fence and wagged their tails for more, whenever I appeared with two or three rabbits. They seemed to sort of like me and were getting tamer than the rest. I lassoed the two with a couple of bale-ropes, tied to the end of a pole, and started out at dusk. When I reached the proper spot, where the odor of sheep was strong, I turned 'em loose.

"In the morning they were back, pacing around the pen, and looking fine and satisfied around the girth. You can see that there was nothing to it from that on. Later in the spring, when the pups began to stick their noses out of the holes in the rock-pile in the middle of the pen, I let the whole pack forage, and I don't believe I ever lost one. Anybody knows you can domesticate a coyote, and you can take it straight from me, they know more than the smartest dog that ever walked.

"It seemed a shame to do what I was going to do with them. The little woolly pups were getting real playful. Many a night, in the moonlight, I've sat and watched 'em maul one another over, and roll and tumble like a lot of kittens. Then the old professor, he'd drift out and ask me if the time for garnering the profits wasn't about ripe; he was a mercenary person, the professor was. Well, I

needed cash myself, so finally we landed up at Sacramento and went to work to get the bounty raised.

"Just as I had expected, those coyotes had caused rumors of sheep destruction to float in toward headquarters; not only rumors either, there were sheep-men there to testify that something had to be done to the carnivorous coyote. They played right into our hands. But to make things sure, I took Professor Solomon around to the committee-room and turned him loose.

"What he said to them was enough to curl your hair. Why, he showed, by quoting Darwin, that according to the laws of evolution and the survival of the fittest, there would soon be a breed of coyotes traveling up and down the State as big as timber wolves and savager.

"Not only that, but he also argued that in the course of time nature would produce an invisible coyote! Do you get that—an invisible coyote—one that could glide in past a sheep-man and rub against his leg, without him seeing it at all; all that he would notice would be the damage that it left behind. I never knew before what the real advantage of a college education was. I sat up and took notice when I heard the old professor spring that one and saw him get away with it. You could have heard a pin drop when he finished that coyote talk of his.

"Some of the committee rose and said that \$15 wasn't too much to raise the bounty on coyote scalps, after that; but it seems as soon as we got out they got more rational, placing the bounty at five dollars, which was plenty big enough for us, and all I had expected. We hung around until it went through that way, and then we disappeared in the direction of all those tame coyotes we had, waiting to be scalped.

"Professor,' I says, 'you are the wise old owl in your line, I'll admit; but when it comes to human nature and the engineering of a scheme, I can give you cards. This coyote deal has gone right, from the start and you'll get your third O. K., but I'll tell you how I feel about it; it's a shame to butcher all those pets of mine for five apiece. I can't ever do it.'

"I saw a kind of cold gleam come into his eye.

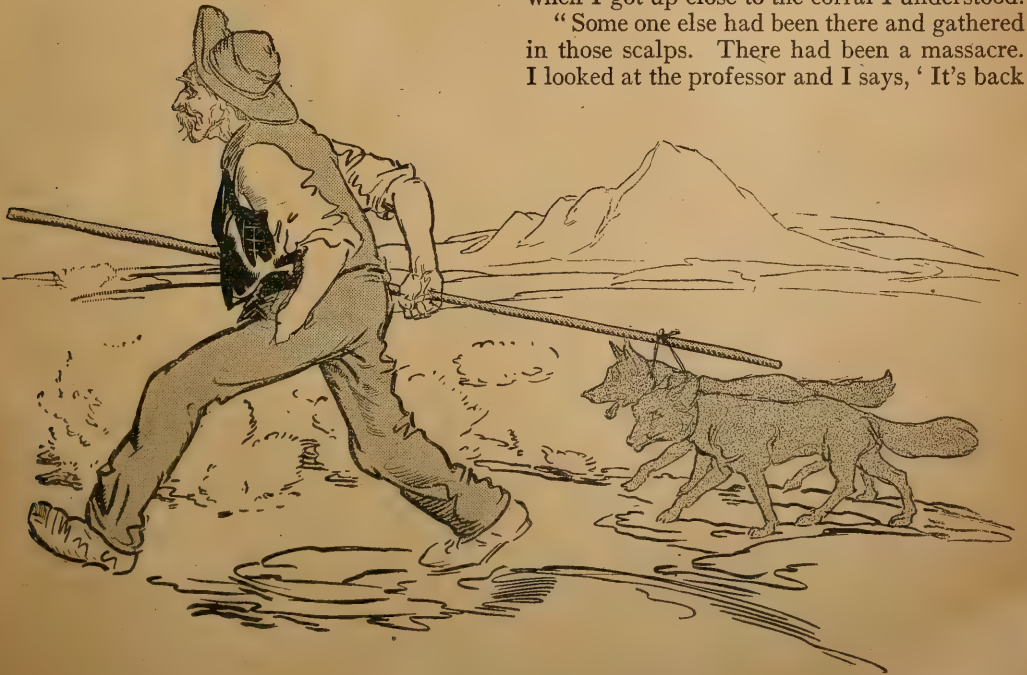
"I have arranged for that,' he says, gazing far away.

"Supposing he meant chloroform or some other pleasant, scientific method of extermination, I felt easier. I thought I'd wait and see.

"When we got near to the ranch, I noticed a coyote streaking up the hill, like the real undomesticated type.

"Something has been around here and has put the old fear into them,' I says, and when I got up close to the corral I understood.

"Some one else had been there and gathered in those scalps. There had been a massacre. I looked at the professor and I says, 'It's back



"THEY SEEMED TO SORT OF LIKE ME."

to town for me. I need another grub-stake; I'm dead broke!

"Old Solomon, he seemed to be preoccu-

" 'I understand,' says he, 'that the bounty on coyotes has been raised to five dollars. Is that true?'



"HE ARGUED THAT IN THE COURSE OF TIME, NATURE WOULD PRODUCE AN INVISIBLE COYOTE."

pied. He was sizing up the buzzards that were beginning to assemble there in large numbers.

" 'I will join you later,' he replied. 'If I am not mistaken that is a California condor over there on that fence-post, and I think I see another *rara avis* over there. Isn't that a turkey buzzard in that flock with pink eyes and with white feathers in his tail? I have orders for them both.'

"It was too sad a place for me. As I rode away that afternoon I met up with old man Bently, bringing in the sheep—that is, what was left of them.

" 'Yes, I says, 'but who gave you the information?'

" 'Oh, a friend of mine that goes by the name of Solomon,' says he. 'He told me that the price was going up, and I was some interested, seeing as I've been supplying sheep for a coyote ranch he was running with me, share and share alike.

" 'I was up there for a while yesterday, gathering in the scalp crop.'

"There being nothing more to say, I just moved on, taking off my hat to him as I disappeared. Ever since that time the howling of coyotes bothers me."

A COUNTRY WITH ONE RAILROAD.

PERSIA, like Turkey, is awakening from her sleep of centuries. She has a constitution, and some other modern improvements, but she hasn't caught up with the times enough to provide herself with a real transportation system.

Horses and donkeys still constitute the passenger and freight-carrying resources of the empire which once dominated the East. Still, Persia has one railroad. It is ten miles long, and runs from

Teheran, the capital, to the shrine of a defunct shah.

The general manager of this road hasn't much trouble in figuring his ten-mile costs. Strikes do not disturb his slumbers. The finance committee doesn't bother itself with dividend policies or bond issues, nor does it lie awake nights wondering if rate-regulating bills are going to pass the Persian Parliament.—*Chicago Journal*.

The Riddle of the Gage.


BY CHARLES FREDERICK CARTER

OF all the vexatious problems of the railroad, none has caused so much trouble as that of its dimensions. So far as the principal dimension is concerned, there has been no difficulty; for it has been generally conceded that a railroad should be just long enough to reach from one terminus to the other.

But its width is a far different matter. The proper distance between the rails, or, in other words, the gage, is a point on which men may honestly differ. The problem is like an indeterminate decimal upon which one might figure forever without reaching a final conclusion.

The late E. H. Harriman expressed his conviction that the greatest mistake ever made by the railroad-builders was in not adopting a six-foot gage. Others, as well qualified as Harriman, have entertained different views which they have expounded at great length. The problem has troubled railroad-builders the world over ever since the first rails were laid.

Why the Standard Gage of Four Feet Eight and One-Half Inches Was Finally Decided On after Years of Experimenting with Various Widths from Three Feet Up.

TEPHENSON, who saw the railroad first, so to speak, undertook to settle the gage question himself without waiting for the advice or consent of any one. The wheels on ordinary road-vehicles in England, when Stephenson achieved

his first triumph, as well as on the horse-tramways operated between various collieries and the nearest navigable waters, were 4 feet 9 inches apart. As the accepted idea of a railroad was simply an improved form of wagon-road, and man being an imitative animal, Stephenson decided that his locomotive should be of the same gage as a wagon.

But automatic machinery and accurate templates and gages were not then in use. Mechanics laboriously wrought everything by hand, and possibly they were not always as painstaking as they might have been.

At all events, when the "Rocket" was assembled in the shop its gage was found to be 4 feet 8½ inches. It was another case of good intentions gone wrong; but after the "Rocket" had won such a sensational suc-

cess at the Rainhill trials, what was there to do but copy it faithfully in subsequent locomotives?

The "Rocket" having become the model for other locomotives, it was definitely settled that 4 feet 8½ inches was the proper gage for a railroad. The world adjusted its ideas to this dictum, and was moving smoothly and harmoniously along until Isambard Brunel, the man who built the famous but unlucky steamship Great Eastern, objected.

Brunel was a British engineer, the son of Sir Mark Isambard Brunel, a famous inventor and engineer who, among many other things, surveyed, in 1794, the canal which now connects Lake Champlain and the Hudson River.

The younger Brunel had a wonderfully persuasive way, which enabled him to manage capitalists pretty much as he pleased. In 1833, when the project of building the Great Western Railway of England was decided on, Brunel was appointed chief engineer.

Brunel was a man with an imagination, which enabled him to perceive the latent pos-

sibilities of the railroad more clearly than many of his contemporaries. He realized that high speed was feasible, but he erred regarding the way it was to be attained.

He made the great mistake of believing that a steam-engine was not capable of high piston speed, and that to get over the ground rapidly a locomotive would have to have very large driving-wheels. To attain the speed he wanted, he figured that driving-wheels ten feet in diameter were absolutely necessary.

Such an engine would topple over in a little less than no time on a railroad of the Stephenson gage. So, to bring the center of gravity down where it would have to behave itself, Brunel determined that his ten-foot drivers would have to be seven feet apart.

When it was announced that the Great Western Railway was to be a seven-foot gage, maybe there wasn't a row in Great Britain!

Every man who didn't know anything about railroads took his pen in hand and wrote letters to the newspapers to prove that the broad gage was, or was not, the proper one.

A Costly Change.

Brunel and Stephenson, the leaders of the broad and narrow gage forces (for 4 feet 8½ inches was then considered narrow gage), and their chief adherents were the siege guns in "the war of the gages," as it was called.

Unforeseen events severely handicapped Brunel, but did not cause him to lose the contest. When his express locomotive was finished, the wheels were so enormous that it was almost impossible to start the engine. When it finally did get under way, stopping was equally as difficult. The ten-foot drivers had to be abandoned.

The railroad could not be abandoned, and it would cost altogether too much to change the gage. Besides, the affair of the ten-foot drivers did not prove that anything was wrong with the gage.

To be sure, there could be no interchange of traffic with connecting roads. Passengers going to points not reached by the Great Western had to change cars at junction points, which was not convenient.

Unfortunately, freight had to be transhipped also, and when packages routed via the Great Western began to turn up in all parts of the kingdom except their destination, the railroad officials began to hear from the shippers. Manufacturers held conventions, adopted resolutions, and made things generally hot for the Great Western.

Finally, the matter got into Parliament, with the result that, in 1846, a royal commission was appointed to inquire into the "general subject of railway gages." The commission listened to a very large volume of testimony, from which it was ultimately deduced that the proper gage for all railroads was 5 feet 3 inches.

For twenty years the contest waged, ending at length in a draw. The Great Western continued to be operated as a broad-gage road for a score of years, until traffic conditions compelled unconditional surrender, and it joined the ranks of the standard gage.

While the great issue smoldered in Great Britain, and on the Continent as well, the railroad builders of the United States were laying the foundations for trouble on their own account. Like their British cousins, they could not agree on what gage railroads should run.

The Baltimore and Ohio's board of directors, which sent a commission to Great Britain to find out what a railroad was before beginning construction, copied the Stephenson gage of 4 feet 8½ inches. Only some of the early railroads copied the Baltimore and Ohio.

In New Jersey, there were some railroad builders who thought 4 feet 10 inches was the correct gage. The first locomotive built by the famous Rogers Locomotive Works was intended for this road. It happened to be the first engine equipped with a whistle, and President James, of the Mad River and Lake Erie Railroad, of Ohio, who happened to witness her trial trip, was so tickled with the whistle that he insisted upon buying it for his road, with the locomotive attached. It being the first locomotive on the first railroad operated in the Buckeye State, it set the fashion in gages there.

Various Gages.

While the prevailing gage in Ohio was 4 feet 10 inches in early days, the Sandusky, Mansfield and Newark Railroad was 5 feet 4 inches. The Atlantic and Great Western, the Erie, and the Ohio and Mississippi formed a 6-foot gage route between New York and St. Louis. The Mobile and Ohio and various other roads in South Carolina and Georgia were 5 feet wide, following the recommendation of Horatio Allen, one of the foremost of the pioneer railroad engineers. The St. Lawrence and Atlantic, in Maine and Canada, was a 5 feet 6 inch gage.

J. P. Kirkwood, chief engineer of the

Pacific Railroad, which was the first trans-continental line on which construction was begun, but which has not yet got any farther than Pueblo, Colorado, in its progress to the Pacific Coast, in a report to the board of directors dated June 27, 1851, recommended a gage of 5 feet 6 inches.

He gave cogent reasons for favoring this gage, and then quoted the opinions of eighteen authorities, including civil engineers, locomotive engineers, and others, all of whom favored a wider gage than 4 feet 8½ inches, then known in America, as in England, as "narrow gage."

Two were in favor of a 7-foot gage. Kirkwood's recommendation was adopted, and 283 miles of the Pacific Railroad were built on a gage of 5 feet 6 inches, and so operated until 1868, when the road was reduced to standard gage.

For years the gage question in America was a hopeless muddle. Each engineer had his own idea. The more plausible ones succeeded in getting their theories put into practice somewhere, with confusing results.

Where Engineers Fear to Tread.

Legislators do not hesitate to rush in where engineers fear to tread. Learning what a time everybody was having about so simple a matter, the Legislature of Missouri passed a law, which was approved February 24, 1853, section 27 of which reads as follows:

"The gage of track, or width between rails, of all railroads in this State, shall be 5 feet and 3 inches."

Even this did not settle matters, though possibly it might have done so if a conflagration had not broken out in a totally unexpected quarter.

Somebody in Wales had a slate quarry. In order to get the product to market the owners built a horse-tramway from Portmadoc to the quarries at Dinas, near Festiniog, a distance of 13¼ miles. The tramway overcame a total rise of 700 feet, the steepest grade being one foot in 68. This was back in 1832.

The Festiniog Railway, as it was called, was the most remarkable railroad in the world at that time, for the builders undertook to make its gage only two feet. Like Stephenson's workmen, they were not clever with the foot rule; so when the road was completed and measured accurately it proved to be 23½ inches.

Strangely enough, no one paid the slightest attention to this miniature railroad. For 33 years it pursued the even tenor of its way,

transporting slate by horse-power every working day, and earning money for its owners.

In 1863, the owners awoke to the fact that they were behind the age, so they purchased two locomotives. They were toys, weighing but eight tons.

Gave Free Rides.

But they worked so well that the company, in 1864, began hauling anybody who wanted to ride, free of charge. Next year, some coaches were put on, and then fares were collected the same as on any other road. The enterprise was so successful that the line was relaid with rails weighing forty-eight pounds to the yard, and locomotives weighing ten tons were put on. Still nothing happened.

Finally, in 1869, Fairlie invented a type of engine which was the first attempt at what is now known as the Mallet articulated locomotive. Fairlie took two ordinary locomotives with simple engines and hitched them together, fire-box to fire-box.

One of these Fairlie engines, the "Little Wonder," was built for the Festiniog Railway. The "Little Wonder" weighed nineteen and a half tons. Each end of this mechanical Siamese twins had a pair of cylinders 8x12 inches, and two pairs of drivers twenty-eight inches in diameter.

It could take a trainload of 127½ tons up the grade, and could bring down a trainload of 336½ tons, of which 230 tons was paying load, making a train 1,200 feet long.

The passenger-cars were 10 feet long, 6 feet 3 inches wide, 4 feet 9 inches high, weighed 2,600 pounds, and carried 12 passengers.

In 1869, this toy railroad carried 97,000 passengers, 18,600 tons of miscellaneous freight, and 118,000 tons of slate, earning a total of \$118,000.

Such an achievement as this could not fail to attract attention. *London Engineering* wrote up the Festiniog Railway; then every other publication took a turn at it. Imperial princes and royal commissions from Russia, Spain, France, Italy, Norway, Germany, Brazil, and the United States made pilgrimages to Festiniog to see just how small a railroad could be and still earn dividends.

Thought He Was a Showman.

They were followed by so many self-appointed investigators, that Chief Engineer Spooner began to wonder whether he was a railroad manager or a showman.

The success of his road turned his head, and he wrote a book and made addresses to prove that 23½ inches was the proper gage for railroads. About this time India was bankrupting itself trying to build wide-gage railroads.

These matters gave the press an excuse to advocate narrow-gage railroads. The Stephenson gage, thereafter, became standard, and everything less than that was "narrow gage."

Horace Greeley spread the narrow-gage contagion in the United States. Greeley was peculiarly susceptible to new ideas, and the narrow-gage craze in his British exchanges fascinated him. He began to write editorials for the *Tribune* advocating narrow-gage railroads.

The Pennsylvania and Kansas Pacific railroads had the honor of introducing General William J. Palmer as the first narrow-gage railroader in America. Backed by J. Edgar Thomson, of the Pennsylvania Railroad; S. M. Felton and Robert H. Lamborn, of Philadelphia, and Governor A. C. Hunt, of Colorado, he went to Denver and, in 1871, organized and began the construction of the Denver and Rio Grande Railroad, which was a three-foot gage.

When Palmer announced that he had built the first 76 miles at a cost of \$13,500 a mile, while the Kansas Pacific had cost \$23,000 a mile, Denver became excited over narrow gage.

Everything Was Narrow Gage.

Everything in town from street railroads to cocktails was narrow gage. During the most acute stage of the attack, it was considered the correct thing to refer to the prospector's most useful ally, the donkey, as a "narrow-gage mule."

Other narrow-gage railroads were built up the cañons radiating from the Colorado metropolis. The line up Clear Creek Cañon, which overcomes a rise of 1,700 feet in 13½ miles, was built at a cost of \$20,000 a mile, as compared with an estimated cost of \$90,000 for a standard-gage road.

Denver, the focal center of the narrow-gage propaganda, created a disturbance that attracted the attention of the whole railroad world. The Russian government fixed a gage of 3 feet 6 inches for new and important lines. India, after a severe contest, formally adopted a gage of 3 feet 3 inches. Carl Pihl, the Norwegian engineer, induced his country to adopt 3 feet 6 inches. France, Belgium,

Switzerland, Italy, Austria, and Germany also began to build narrow-gage lines.

As for the United States, the printing-presses could scarcely turn out narrow-gage railroad stock fast enough. A great national narrow-gage convention was held in St. Louis in 1872, at which everything was settled, including the standard height of draw-bars for narrow-gage cars, which was to be 24 inches from the top of the rail to the center of the drawhead.

The Change.

Much was made by the newspapers of the first narrow-gage cars and engines for the Denver and Rio Grande. The coach was 35 feet long, 7 feet wide, 10½ feet high from rail to roof. It weighed 15,000 pounds and seated 36 passengers, 3 abreast, a double seat on one side and a single seat on the other.

The first box-cars were 23½ feet long, 6 feet wide, weighed 8,800 pounds, and nominally carried 9 tons.

The first locomotive, a Baldwin named the "Montezuma," had four drivers, 40 inches in diameter, a pony truck, and cylinders 9x16 inches. The top of the stack was 9 feet 9 inches above the top of the rail. The "Montezuma," which weighed 25,300 pounds, had a tractive power of 512 tons on the level, and of 98 tons on an 80-foot grade.

Nearly every State in the Union began building narrow-gage railroads, nearly all being of 3-foot gage. On February 1, 1876, there were 2,687 miles of narrow-gage railroad in operation in 26 States and Canada, and 7,973 miles were projected.

Gradually the country began to recover from the narrow-gage delirium. The numerous projects for narrow-gage roads were allowed to gather dust in pigeonholes, while the building of them just stopped. A few years later, A. M. Wellington, an eminent authority on railroad engineering, was able to write:

The irresistible logic of events has practically settled the question; and the belief in the narrow gage as an expedient and defensible system of construction, which from the beginning was founded on illusion and delusion is rapidly passing away.

Traffic Needs Considered.

About the same time, the owners of the broad-gage roads, finding themselves hopelessly handicapped by their inability to interchange traffic with the majority of roads,

which were of standard gage, began to bring their rails closer together. The Ohio and Mississippi, the western end of the 6-foot route between St. Louis and New York, led the way.

On January 28, 1871, the board of directors voted to change to standard gage. Forty standard-gage locomotives and a few standard-gage cars were ordered, and arrangements were made to alter 28 locomotives and 700 cars from broad gage to standard, at a cost of \$3,600 per locomotive, \$150 per passenger-coach, and \$45 per freight-car.

Saturday, July 22, 1871, all broad-gage rolling-stock was disposed so as to clear the track at midnight. At dawn on Sunday, July 23, the work of changing the track from broad to standard gage was begun. At 11 A.M. the entire main line and Louisville branch, altogether more than 400 miles, was finished.

This was a remarkable feat, which demanded system and discipline of a pretty high order. It was not surpassed until 1886. Between May 12 and June 2 of that year, more than 12,000 miles of track in the South were changed from broad to standard. On no road was there any interruption of traffic for more than one day.

The Louisville and Nashville changed 1,800 miles, including main lines and sidings, on May 30, 1886. The total number of men required for this great task was 8,763, an average of four men per mile.

Beginning at four o'clock in the morning of July 9, 1885, the Mobile and Ohio changed more than 500 miles of track from broad to standard gage in twelve hours, interfering with the movement of but one passenger train and a few freights.

One day's cooked rations were carried on push-cars, together with spikes and tools and other necessities. One broad-gage push-car was kept ahead of the work, and a standard-gage car followed. The best record made by any crew that day was 5 miles of track changed in $5\frac{1}{2}$ hours.

That settled the broad-gage railroad in the United States. Now the only broad gage, so far as I know, is the Mount Washington rack road, which is of 5 feet 7 inches gage throughout its entire length of 3 1-3 miles.

The railroads of the United States to-day are all of standard gage, with double tracks and sidings spaced 13 feet apart from center to center. Some, though, are only 12 feet, or $12\frac{1}{2}$ feet center to center, while a few, including the Illinois Central, are 14 feet. In the South most of the roads are 4 feet 9

inches gage, while a few are 4 feet $8\frac{3}{4}$ inches. Practically all railroads widen the gage on curves at a fixed rate per degree of curvature, the maximum being half an inch.

But if any man thinks the narrow-gage road has disappeared utterly, he is very much mistaken. The Denver and Rio Grande system still includes 795 miles of 3-foot gage, and there are other narrow-gage railroads in Colorado. There are some 3-foot gage tracks in Pennsylvania, and still others in New Mexico, Utah, Arizona, Nevada, and California, together with some $3\frac{1}{2}$ -foot gage.

The Nevada, California and Oregon Railroad, to be 363 miles long when completed, is of 3-foot gage. Massachusetts has a 3-foot gage road, the Boston, Revere Beach and Lynn.

Maine has a weakness for railroads of 2-foot gage, some of which are earning four per cent dividends, while others are earning deficits just like some of the bigger roads. One of the longest of these 2-foot gage roads is the Wiscasset, Waterville and Farmington Railroad, from Wiscasset to Winslow, 61 miles. The Phillips and Rangeley Railroad, also a 2-foot gage, is 50 miles long.

The longest 2-foot gage railroad in the world is the Otavi, from the seaport of Swakopmund, in German Southwest Africa, to Otavi, a distance of 360 miles. Construction on this line was begun in August, 1903, and was finished in 1906.

It was a hard road to build, for native wars deprived the contractors of their first force, while the imported men who took their places spent most of their time striking.

Water was very scarce—so scarce, in fact, that it had to be hauled forty miles.

After the steel was partly laid, water was hauled on trains for a hundred miles to the men at the front. Yet, in spite of these drawbacks, the line, which was built to develop some copper mines, became self-supporting a year after it was completed.

India and Australia have railroads of assorted gages up to $5\frac{1}{2}$ feet. Belgium and France have narrow-gage roads sandwiched in among the standard gage. The Caen, Dives and Luc Railway, in France, of $23\frac{1}{2}$ -inch gage, pays seven per cent dividends. Italy has a large assortment of gages, beginning at $33\frac{1}{2}$ inches and running up to standard.

Reduced to its elements, the gage situation at present is just this:

Any man who has the money may build a railroad of any gage he pleases. Then he is at liberty to make it pay—if he can.

BILLY'S UNAVOIDABLE DELAYS.

BY GEORGE FOXHALL.

What Had To Be Done to Prevent the P. S. and N. B. R. R.
from Buying Any More Second-Hand Motive-Power.



HE most polite man in the world could not have called the P. S. and N. B. a first-class railroad, and Jim Parkinson was not even the most polite man in New Mexico. Perhaps it is

not giving Jim too much praise to say that he was actually the least polite man in New Mexico—or any other Territory or sovereign State in our Union.

What Jim could say of the P. S. and N. B. can, therefore, be readily imagined. This, be it understood, was on ordinary occasions; but what Jim said of the P. S. and N. B. when it made him miss the mail connection with his varnished flier five times in one week was a series of masterpieces in the railroad man's fine art of saying things about a railroad.

This was how it happened. But, first, we shall have to explain a little. Jim did not work for the P. S. and N. B. If you had mentioned such a possibility to him he would have assured you—in terms admitting no debate—that he did not.

The road Jim worked for was the swellest of the swell transcontinental highways. Its road-bed was only equaled by its signaling system; its signaling system by its electric-lighted cars; its electric-lighted cars by its high-speed locomotives, and its high-speed locomotives by Jim; while all were perfect.

But even perfect road-bed, perfect equipment, and perfect engineers must, in this imperfect world, be handicapped in operation, and the handicap of the Southern Transcontinental was the P. S. and N. B.

Now the P. S. and N. B. had at one time been a prosperous little railroad of thirty-two and a quarter miles. That was in the days of the lumber-camps. Gradually, however, the lumber had grown less and less.

Finally there was hardly enough lumber to fence a barn-yard.

Farmers were slow in settling the country, and the finances of the P. S. and N. B. sank into such insignificance that the duties of the auditor would have been slightly less wearisome than those of the crossing-tender had the P. S. and N. B. possessed an official of either type—which it did not.

When the Southern Transcontinental was building, prosperity was still hovering smilingly over the P. S. and N. B., and the road was not for sale. Accordingly, the S. T. had been compelled to make a wide détour, adding twenty miles of curves and tunnels and stiff grades to the smaller road's thirty-odd miles of valley track, and the S. T. had never forgiven the owners of the P. S. and N. B.

But hate must give way to convenience; and, when the great rivalry for the mail contracts came about, the S. T. was glad enough to run a couple of miles of track at one end and a couple of hundred yards at the other end of the jerk-water road, and, making a running agreement for two trains a day over the perfectly level short cut, thus secure the contract.

Shortly after this came the slump for the P. S. and N. B., and Wilbur Warfield, president and principal stockholder, had approached the S. T. with a proposition for the sale of the road. The S. T., knowing that its close-shaven running contract was now the chief financial support of the P. S. and N. B., smiled to itself as it reminisced over the millions that Mr. Warfield's obstinacy had cost it on an earlier occasion—and refused to buy.

Instead, it offered a mortgage, which Mr. Warfield, with newly acquired insight, refused to consider.

Now, things were coming to a crisis, and Mr. Warfield was talking things over with his vice-president, master mechanic, road-foreman of engines, and only engineer, Billy MacDonald.

"Billy," he said, "unless we can get the S. T. to buy us by the end of the month, we shall have to accept their mortgage, and you know what that means."

"I do," said the vice-president, etc.

"That piece of motive-power of yours, Billy, ran away with all our salaries for the month and some over, and to run six trains a day, even with the same engine, engineer, and conductor, costs money."

"It sure does. But we had to have that old horse, as you know. The old 726 hadn't a sound flue or connection in her, and every thrust of her pistons threatened to wrap her side rods round her steam dome, and would have done so, only she couldn't make enough steam to more than just move 'em."

"I know, Billy. It was only the mercy of Providence and the cleverest engineer in the U. S. A. that kept her old flat wheels limping on the rails as long as they did. You surely are a wonder when it comes to tinkering, Billy. You certainly have the courage of your convictions. Billy, why don't you resign and go on the S. T. while we still have our self-respect?"

It was a trick of Billy's to continue his conversation where he left off, no matter how long the interruption, when the interruption was particularly distasteful to him.

"And as for that second-hand water-boiler on wheels that you bought from the Atkinson and Santa Maria, I might as well tell you that it's a hop-skip-and-a-jump four-flusher. It hasn't a weak spot in it, relatively speaking, because it hasn't got one spot that can brag over another, an' some day it's going to pieces like the deacon's one-hoss shay.

"Tandem compound! Huh! Tandem compound! What did we want any sort of a compound for? She eats up more coal than a steamboat, and don't go as fast as a snow-plow."

"Why, Billy, I thought you were so tickled over that new-second-hand compound that you hated to stop her even at terminals. Didn't I hear you telling your kid fireman and Jim Parkinson, who was guying you about her, that she was your Arab steed or something? And you certainly have fixed her up to look fine."

Praise is a great wonder-worker. Still, one would hardly imagine that this small

commendation was enough to affect the cool-headed young Scotchman.

Whatever it was, whether it was the praise or the sudden remembrance of some forgotten fine point in his "Arab steed," Billy seemed suddenly to change his point of view. He grinned cheerfully. He beamed. He gurgled. He laughed.

"Yes," he said happily. "She certainly does look fine, doesn't she, with her painted boiler and lacquered cylinder-covers, and polished nuts and rods, and her neat little, sweet little dinky side-cranes to swing her front cylinder cases on—all as handy as an operating-room?"

"She is one glorious credit to the road and to me. She is inspiring. She is the sign of hope. Cheer up, Mr. Warfield; we'll sell the road, all right," and, still chuckling, Billy made for the door.

Mr. Warfield was alarmed. Had the trials of his position and his affectionate loyalty to the road unhinged the young man's mind?

"I say, Billy," he called after him, "why don't you resign and—" But Billy was gone.

Many people had asked Billy MacDonald that same question, and had received answers that no Chaldean soothsayer could have understood or explained, and Chaldean soothsayers could explain pretty nigh everything, whether they understood it or not.

Jim Parkinson had asked it almost every day, and so had Mr. Warfield; but heretofore the latter had asked it with a twinkle in his eye and a wink toward the portrait of his daughter Maggie, that stood on the presidential desk. Mr. Warfield knew why Billy stuck to the P. S. and N. B., and so did Billy, and so did Maggie. As for the rest, it was none of their business.

And now, Mr. Warfield was genuinely alarmed for his vice-president, engineer, and prospective son-in-law. Anybody who could try to assure him, with—he must confess it—a rather silly grin on his face, that the S. T. would buy the P. S. and N. B. R. R. by the end of the month, this being the tenth, must be on the verge of mental disintegration.

As for Billy, he climbed into his engine and made a slow but successful run to Porterville, hauling three creaking coaches, two cars of miscellaneous freight, and one nearly blind old woman with a nearly blind dog.

Then he made the return trip to Briscoe, minus the freight, and with half a

dozen stolid farm laborers, in addition to the old woman, who never left the train until the final trip, and always at the place where she got on. Billy and the conductor always let her ride, and she always rode, though never going anywhere, because she liked the gentle motion. So did the dog. They were Billy's mascots.

On the second trip out to Porterville things began to go wrong. They had two hours and a quarter to make it in and clear the mail flier. Usually they made it in an hour and fifty-five minutes. Jim Parkinson was pulling the flier. When he had waited ten minutes he began to swear. When he had waited fifteen minutes he continued his uninterrupted swearing, and when he had waited twenty-five he sought the despatcher.

Just as he was in the midst of an oratorical demand for orders to dash at schedule speed over the single track of the P. S. and N. B., and was compromising with orders to flag his way down, Billy pulled in. Jim saw him and dashed down the steps and up to Billy's cab to give him a quick but complete glimpse at the state of his mind.

"What's the matter with that old egg-boiler of yours? If I had a tin, ten-legged Arab nag like that, I'd set him plowing up the Sahairy Desert or doin' somethin' more useful than holdin' up United States mail for a real railroad. A donkey-engine on cog-wheels could haul a train faster'n that old cast-off teakettle."

Jim would have said more, only he hadn't time; and Billy might have replied, but there was nobody to reply to. So he just grinned his lately acquired silly grin at the back of the departing Jim, and, by a wonderful process, managed to assume the most wobegone face for the benefit of the division superintendent of the S. T., who came up at that instant.

"Awful sorry we delayed you, Mr. Summers," he said, "but I lost a crosshead-nut five miles out of Briscombe, and didn't dare move her either way on only one side. She pretty near coughs her soul-bolt out running on two sides, and if we'd gotten permanently laid out it would have meant a worse lay-out for the flier. Had to send my fireman back for a nut."

"Send your fireman back for a nut!" shouted the old man wrathfully. "Send your fireman back for a nut! Nice old postscript of a near-broke road you work for! Send your fireman back for a nut! Why didn't you find the nut and send him back for an engine? Send your fireman

back for a nut, eh? Why didn't you make your fireman haul the train?"

Then, evidently losing his wrath in this close survey of the offending decapod, he suddenly exclaimed wonderingly: "Say, Billy, where did you get *all* that paint?"

For a second Billy had to duck in his cab on the pretext of picking up a piece of waste. Then he turned a face full of serious enthusiasm to the super.

"Now, honest, Mr. Summers, don't you think she looks like a pippin? Don't you think she's a credit to the man that decorated her? Don't you think she looks as if she could haul the flier easily? Guess she could, too, with a bit of practise. Of course, any engine can lose a nut. Now, I once—"

But the vision of an engine going through training stunts to haul his crack flier was too much for Mr. Summers, and, with a disgusted grin, he made his escape from the man he had come to rake over. Even an irate superintendent has somewhere a hidden sense of humor.

But if Mr. Summers had a sense of humor, it was put finally out of commission when a similar accident delayed the flier over half an hour the next day.

When the third day brought an even longer delay he could have eaten the P. S. and N. B., its lone decapod, and Billy, without even the smallest grain of salt.

On the fourth day Billy managed to clear, and he patted his Arab steed affectionately on her double-jointed cylinders and called his fireman to witness that not a sweeter-running piece of machinery was carried on wheels. The fireman, who considered Billy the greatest mechanical genius of the age, agreed with him blindly.

But the fifth day was another "unavoidable delay," and the sixth day saw tragedy stalking grimly over the ties.

It was at the fill, across the Deep Dip Swamp, where the beautiful pride of Billy's heart blew out her left high-pressure cylinder-head. Billy choked her off and looked solemnly across at his fireman.

"Now, wouldn't that hot your boxes, Ben? Here we are over the swamp, an' I've got to tie up that bad wing an' run her in on one side. Now, Ben, I know darned well that this willing engine can't do what she can't do, don't I? Yes, I do. And what she can't do is to pull this train into Porterville with her right side in the condition her right side is in at this minute. Didn't we hear that right side hammering like a boiler-shop this morning?"

"We certainly did, Billy," attested Ben. "So what shall I do? Ben, I'll show you some mechanical tricks. We take this block and tackle and this wrench, and we climb out of this cab—"

Billy backed down onto the toes of the conductor, who nearly rolled backward into the swamp—"and we go to this neat little, dinky little crane with which all P. S. and N. B. engines are equipped, and we proceed to remove this forward cylinder cover with a view to doing the same thing to the pounding in the low-pressure cylinder—which we do. Then we tie up our broken member and proceed on our way without having held up the snobby flier of the S. T. more than an hour and forty-two minutes."

Billy quickly proceeded to suit the action to the words. He swung the little crane out and rigged up his block. Then he hammered and wrenched and pulled and heaved and propped, until, in about half an hour, the front cylinder cover was swaying uncertainly from the crane, while Ben, the fireman, clung for dear life to the rope that supported it, for there was no check-pawl on Billy's crane.

Billy was just diving into the inner mysteries of the exposed cylinder, when the exhaust of a hurrying engine was heard.

"Ha," he said, without looking up, "Jim comes to seek us. We shall show him what an expert engineer ought to know."

Billy was so engrossed with his work that he did not look up until Jim Parkinson's voice caused him to jump suddenly. He dropped his wrench on the toes of the devoted Ben, who was struggling to make fast his cumbersome charge.

Ben let everything go to grab his foot, and before a hand could be raised the cylinder-cover slipped down, dragged the fast-weakening crane from its bolts, and rolled, with an appearance of thankful finality, into the swamp.

Billy looked in despair at Parkinson:

"Why, Jim, what you pushing the wrecking outfit for?"

Jim was businesslike. He was too businesslike even to curse the P. S. and N. B. The elephantine proboscis of the wrecking crane hovered hungrily over the pitifully dismantled tandem compound.

"Billy," said Jim, "you've had a wreck, or the second cousin to one, on this unfortunate road pretty near every day this week. Why shouldn't I bring the wrecker? You're a friend of mine, Billy; but there's a man on that flat car with a shotgun and instruc-

tions to help me move this wreck. Has the P. S. and N. B. any passengers?"

"I must admit that it has, Jim," answered Billy, stating the fact with the seriousness it deserved. "It has one aged female woman, nearly blind, and one aged female dog, nearly blind, also. Besides that it has one car of cauliflowers from Farmer Perkins, and nothing more. The old dog has two teeth, but they are both in one jaw, so she is harmless. The old lady and the cauliflowers are ditto."

"Conductor," said Jim, turning to the inarticulate youth who officiated in that capacity for the P. S. and N. B., "remove your passengers to the baggage-car of the flier, and beware of the shotgun. We are going to remove the wreck."

Jim's removal of the wreck—engine, coaches, and car of cauliflowers—is local history in that part. To get the engine in shape to be pushed back would have meant two hours' delay, for when Billy had jammed on the air-brake it refused to be jammed off. So, piece by piece, the rolling-stock of the P. S. and N. B. was hoisted by that hungry proboscis and dropped into the swamp, while Billy looked sadly on.

Then they pushed on to Briscoe, and there Jim handed in a telegram. It read:

W. B. SUMMERS, DIVISION SUPERINTENDENT,
S. T. R. R., PORTERVILLE:

Have dumped entire motive-power and rolling stock of P. S. and N. B. from their own tracks into Deep Dip Swamp. Advise president to buy their old road and stop cost out of my pay.
PARKINSON.

Five days later Wilbur Warfield, Miss Maggie Warfield, and William MacDonald were laughing happily over a communication from the president of the S. T., in which the Transcontinental offered the stockholders of the P. S. and N. B. seven hundred thousand dollars and the assuming of all indebtedness for their title to the right-of-way, etc., etc., of the P. S. and N. B.—all the officers of the road to be taken in, forming a new division with a division superintendent.

There was a postscript, stating that this prompt action was being taken to prevent the P. S. and N. B. acquiring any more second-hand motive-power.

"Billy," said Mr. Warfield, "before I accept, I resign and elect you president. That'll make you division superintendent."

"And I," said Billy, "am going home to write Jim Parkinson to come and be best man at the wedding."

Ten Thousand Miles by Rail.

BY GILSON WILLETS,
Special Traveling Correspondent of "The Railroad Man's Magazine."

TO the ladies of the rail—God bless 'em!" At last Mr. Willets, in his long journey in quest of tales to tell, has gathered the bunch of yarns we have wanted—and the heroine of each one is a member of the fair sex. Each heroine really had something to do with railroad life—something that was far more tangible than riding in a passenger-coach.

We are glad to be able to hook up to just such stories as these. The influence of woman permeates all branches of American industrial life, and the part that she plays in the great American railroads—whether it be the fair stenographer or the G. M., or the wife of the humblest tallow-pot—her interest in all that makes this great, throbbing railroad life possible is as keen as that of a man.

"The mere presence of women is a great harmonizer," said a great French philosopher, whose think-nozzle never became clogged. We agree with him and rise again to the toast: "To the ladies of the rail—God bless 'em!"

No. 4.—SOME RAILROAD GIRLS I'VE MET.

A Necklace of Bullets—Edith Jarnagin, the Despatcher—The C. C.'S Stenographer—Couple No. 3200—The Bet She Lost—The B. and O. Polar Expedition—When "Mother Allen" Moved.



YOUNG woman riding a Mexican pony loped past the shack bearing the big sign, "Saloon," near the right-of-way of the new St. Louis, Brownsville and Mexico Railway, at Brazoria, Texas, sixty miles south of Houston, the northern terminus of the road. The line was then building down the Texas gulf coast, and Brazoria was the "front."

Within the shack were gathered a number of the railway-construction gang and a few graders; and when the housewife passed one of the track-layers said:

"It's the lady doctress."

"Prettiest lady between King's Ranch and Corpus Christi," said a grader.

"It's third-drink time," said a third mem-

ber of the construction outfit, "and it should be unanimous in our midst that we take said drink standin' up in honor of said lady doctress."

In response to this proposed toast, a grader known as "Miguel the Mexican," uttered a certain remark which met with such vehement disapproval of all the other men present that they "allowed" it would be a good thing to swing Miguel from the cross-arm of one of the telegraph-poles that had recently been planted beside the new right-of-way.

That's what the outfit told Miguel—just to scare him.

Pretending to be in earnest, they dragged him out to a telegraph-pole and put a lariat around his neck. Just then a Texas ranger,

one well known to the construction outfit, rode up and expostulated against the proceeding.

The boys took him aside, informed him that they were merely playing a joke on Miguel, and requested him to "sit out of the game."

At the same time, Miguel, scared half to death, suddenly turned grim comedy into dire tragedy.

Slipping free of the noose, he rushed to where the ranger was sitting on his horse, leaped into the saddle behind the rider, whom he pinioned with his arms while urging the horse into action with his heels.

The animal, guided by Miguel, who had seized the reins, dashed away toward a deep, dry arroyo.

On the edge of the abyss the horse planted his hoofs, refusing to make the leap, whereupon Miguel performed a horrifying act, for which he could not account later except on the ground that the threat to hang him had driven him crazy with fear, so that he hardly knew what he was doing.

While holding the ranger in an iron grasp with one arm, he used the other to drive a knife deep into the horse's flank.

With a pitiful neigh of pain, the beast reared, and was about to take the fatal leap when the ranger, with almost inhuman strength, freed himself from the Mexican's grasp, secured a hold on the reins, and turned the horse on its hind legs.

As the steed then sped away from the arroyo, Miguel lifted his knife as if he intended to stab the ranger.

A pistol-shot rang out, and the Mexican tumbled from the horse. One of the construction-gang had fired that shot, taking the chance of hitting the ranger instead of the "greaser."

An hour later the "lady doctor-ess" came riding back past the shack, in front of which she found a number of men gathered around one who lay on

the ground. After asking what had happened, she was told that Miguel the Mexican had been shot and was about ready for a coroner.

Springing from her horse, the "lady doctor-ess" knelt over the man lying on the ground, examined him with a few swift movements, seemed to be in doubt about something, then put the crystal of her watch to the man's lips.

"Did you mean to bury this man?" she asked presently, taking a look at her watch. Receiving an affirmative answer, she added:

"Then you would have buried him alive. I think his life can be saved. He must be carried over to my office at once. Hurry, please."

Three weeks later, "Miguel the Mexican" was able to walk, and the construction men promptly ordered him to leave the region in a hurry.

Soon after that, the "lady doctor-ess" was seen wearing a bullet attached to a chain around her neck. It was the bullet she had extracted from Miguel's body. It indicated that she had saved the life of a human being.

Time passed, and still the "front" of the new Texas railroad was at Brazoria.

One day the construction train met with

an accident, which was followed by a shooting affray. The "lady doctor-ess" attended to the men injured in the railroad mix-up, and saved the life of the man hit when the lead was distributed. In a short time she appeared with two bullets pendant from the chain at her throat.

Months passed, and the road was nearing completion. Many accidents had occurred in which men of the construction outfit were injured.

Many shooting scraps had taken place, and the physician who attended those who were



HER NECKLACE CONTAINED NO LESS THAN TWENTY BULLETS.

injured within twenty miles of Brazoria was the "lady doctress."

It was she who probed for bullets after the shooting scraps, and now her necklace contained fifteen or sixteen bullets, each one representing a separate surgical operation and a life saved.

General offices of the railway were opened

Miss Herzog has proven over and over again that she's the equal, if not the superior, of any male physician on the line."

The result was that Dr. Sophie Herzog was appointed a surgeon of the St. Louis, Brownsville and Mexican Railroad, with a district embracing some fifty miles of line up and down from Brazoria. Every man on the line was glad to hear of the appointment.

She had, indeed, made herself beloved by all the hands employed on the new railroad. Any man injured in an accident on the tracks, or wounded as the result of gun play, was only too glad to be attended by the "lady doctress" of Brazoria.

No woman in all the region was so highly respected nor so thoroughly admired by the railroaders as was Dr. Sophie Herzog.

The new road opened for business, and had been running regular trains for two or three years, when, early in 1909, a surgeon of the Illinois Central Railroad paid a visit to the Texas gulf coast, making a stop at Brazoria.

There he met Dr. Sophie Herzog. Having been shown the now famous necklace of bullets, the Illinois Central surgeon remarked:

"There's certainly no dearth of human target practice down this way."

"Is that not always the case when a new railroad pushes through a sparsely-settled region like this?" answered Miss Herzog.

One year later, I met that Illinois Central surgeon in New Orleans, whither he had come to attend a convention of railroad surgeons connected with the various roads traversing the Southern States. He told me this story of one who, so far as he knew, was "the only woman railroad surgeon in the United States, if not in the world."

"And her necklace, when I visited Brazoria last year, contained no less than twenty bullets," the Illinois Central surgeon added. "Each bullet represented a surgical operation, while the unique ornament, as a whole, meant that my confrère, Dr. Sophie Herzog, had saved the lives of no less than twenty



SHE SET DOWN THE APPROXIMATE LOCATION OF EVERY TRAIN.

at Kingsville, a little south of the midway point on the 375-mile line between Houston and Brownsville. There, General Manager Rodgers one day said to Superintendent Finnegan:

"We need a surgeon on the Brazoria division. How would it do to give the appointment to that young woman up there who has done such good work during the period of construction—Miss Herzog?"

"Dr. Sophie Herzog?" replied Superintendent Finnegan. "Never heard of a woman railroad surgeon, did you?"

"No. But that makes no difference.

men connected with the new railroad which B. F. Yoakum built down to the southern-most town in the United States."

Long ago, I found that the wives, daughters, sisters, sweethearts, and women-friends of railroaders read *THE RAILROAD MAN'S MAGAZINE* quite as much as the railroad men themselves. This is, then, a railroad woman's magazine, as well as a railroad man's magazine. So here is an all-heroine group of tales of certain of the girls in Dixie camps.

The Train-Dispatcher Girl.

The engineers, conductors, and other trainmen of the Chattanooga Southern Railway shook their heads when Miss Edith Jarnagin was made train-despatcher in the general offices of the road, at Chattanooga.

Edith Jarnagin did not become the czarina of a train-sheet by any haphazard chance, by pull, or by favoritism. She earned that sheet, and this was what she did:

For several years she had been an expert telegrapher, holding a job at a station on the Chattanooga Southern, below Chattanooga. One morning there was "wire trouble" of a kind never before known in that region. The electrical disturbance was frightful, mysterious, even appalling.

When operators opened a key, brilliant sparks would fly out. The wires made strange noises whenever an operator tried to send a message. Fuses burned out, communication between all stations and the despatcher's office was cut off; and, for five hours, trains had to run without orders and get through the best they could.

Most of the trains didn't get through at all. They got tangled up in bunches. Passenger engineers found themselves on side tracks, while freights monopolized the main tracks.

At the station where Edith Jarnagin was operator, no less than seven or eight trains came to a standstill, all having run so far as they could without orders.

In this tangle of trains there was a special which positively had to be moved, and the problem confronting the train crews was—how to get past the stalled trains.

Conductors and engineers argued and discussed ways and means; trainmen butted in with advice; and section foremen suggested this and that.

All the while, the young lady operator in the station sat figuring on a big sheet of

paper. She set down the approximate location of every train on the thirty-odd miles of track between her own station and Chattanooga.

She then drew a plan of all the tracks, main, side, switch, and "Y," within miles of where she sat. Having looked, she leaped—out to the arguing train crews.

It took her two minutes to show the freight engineers exactly what to do with their trains, and to convince the passenger men of the movements they could make. She showed, indeed, that by moving all the stalled trains in accordance with her plan, the special could proceed at once and get to the end of the line without further delay.

The work was done, and well done, just as she had suggested.

A few days later the general manager sent a message to Edith Jarnagin asking her to come to Chattanooga to see him.

Wondering if she was about to be "laid off," or "jacked up," or "fired" for some mistake or misdemeanor, Miss Jarnagin traveled to Chattanooga and hurried to the general offices, where she was ushered into the general manager's sanctum.

"Miss Jarnagin," said the general manager, "I learn that you have a head for mathematics such as a train-despatcher need possess."

"Not at all, sir."

"And that you have strong nerves, quickness, and tact—such as make a successful train-despatcher."

"No. It's a mistake, sir."

"And that you possess fertility in expedients for overcoming delays and providing against accidents—these being also the qualifications of a good train-despatcher."

"Nothing of the sort, sir."

"All of which," continued the general manager, "have militated in your favor to the extent of inducing me to offer you the position of train-despatcher at these headquarters."

"Oh, no, sir! I couldn't think of it!"

"Very well, miss, the matter is settled. You may report at once to the chief train-despatcher and begin work."

Next day, conductors and engineers of the Chattanooga Southern shook their heads from side to side. They were now receiving orders from a girl train-despatcher, and they predicted all sorts of terrible mixups.

Weeks passed, and the conductors and engineers still shook their heads—not from side to side now, but up and down. The headshaking had become a nodding.

Edith Jarnagin had made good, and the boys were proud of the first girl train-despatcher in the railroad camps at Dixie-land.

The C. C.'s Stenographer.

Among the clerks in the office of the master mechanic of the Virginia and Southwestern Railway, at Bristol, Tennessee, was a general air of expectancy. Everybody was on the alert. Every man appeared earlier than usual on that morning in January. Even the master mechanic himself arrived fully five minutes ahead of his customary time.

A new stenographer was expected that morning. She was very pretty, it was said.

Certain improvements were noted in the sartorial appearance of the chief clerk to the master mechanic, Proctor Brown. For example, Mr. Brown's shoes had gathered an unwonted shine; the necktie he wore had never before been seen in that office; and the crease in his trousers had a razor edge.

The new stenographer was coming to work exclusively for the chief clerk.

On the stroke of nine, Miss Carrie Corbett, stenographer, entered.

She had arrived only the night before from her home at Morristown, Tennessee, and was a total stranger to all in the master mechanic's office—in fact, to all Bristol.

The instant and unanimous verdict in the master mechanic's office was that nothing lovelier in feminine apparel had ever been employed in any department of the Virginia and Southwestern.

With lightning-like flashes out came the long rapier pins from her picture hat. Then, in a twinkling, sheets of typewriting paper were clasped around the lower ends of her sleeves, forming protective cuffs. In a jiffy off came the cover of the typewriting machine.

In a voice alluringly sweet and low, Miss Corbett said:

"All ready, Mr. Brown."

Chief Clerk Brown cleared his throat, moistened his lips, and began dictating.

"Biff! bang! whizz! sizz! zip!" answered the typewriting machine, registering words with the rapidity of an electric piano playing a galop.

Brown accelerated his talking gait, but the machine stayed right with him, neck and neck. Then he tried pouring out words with the velocity of a campaign spellbinder. Still the machine stayed right with him. When he paused for half a second, the operator twirled her thumbs and let it become

known by her expression that she was indescribably bored by the manifestly slow pace at which correspondence moved.

"Looks like you're going a hundred words a minute, Miss Corbett," panted Chief Clerk Brown, mopping the sweat of honest toil from his brow.

"Hundred and eleven's my record," answered the new stenographer. "But I see I'm going to fall off in speed in this office for lack of practise. I can do a hundred a minute blindfolded."

Three weeks passed, a mere eighteen days of toil, in the master mechanic's office. On the first day of the fourth week of Miss Corbett's engagement, Chief Clerk Brown said to her:

"Take this, please." The words began rolling from his mouth like wheels down hill, the machine keeping pace, as usual.

"Cross all that out," said Brown suddenly, "and take this instead. Begin this letter with 'Dear Miss:'"

"Miss who?" snapped the operator.

"I'll let you know later, Carrie."

"Company letter-head?"

"No, Carrie. Private. All right? - Let her go!" And Brown dictated this:

DEAR MISS:

Having tired myself to exhaustion in repeated and futile attempts to feed words fast enough to please a typewriter-girl who eats up whole stacks of dictionaries faster than any locomotive on the line eats tons of coal, I yearn for rest, and believe that the only way to get it is to fire the typewritist. As you have known her since she came into this world, I write this to ask if you think she would object if the notice of dismissal were put into her hands in the form of a certificate of marriage. Please wire answer immediately.

Having dictated this, the chief clerk made a hurried exit from the room, and had a long talk with his boss, the master mechanic.

When Brown, in the course of time, returned to his own office, his stenographer was not there; neither was her picture hat, nor her deadly hatpins, nor her paper cuffs, nor anything else that was hers.

On his desk, however, Mr. Brown found this message, written on a telegraph form:

DEAR SIR:

Replying to yours of even date, I beg to state that though my friend already regards herself as fired, yet she will meet you this P.M., at four o'clock, at the First Presbyterian Church of Bristol, Tennessee, to receive the formal notice of dismissal as per your favor of this date.

At 4 P.M. that January day of 1910, the

ceremony took place. When I arrived at Bristol in February, they were just the happiest couple in all Virginia.

Proctor Brown, chief clerk to the master mechanic, had then in his employ the slowest-speeded typewriting artist in Tennessee, and his speech was now like unto the drawl of Mark Twain.

The chief clerk to the master mechanic was giving his dictating apparatus a holiday.

Couple No. 3,200.

Bristol, the scene of the romance just narrated, is one of the most popular of all the Gretna Greens on southern railway lines.

The main street is part of the boundary line of Virginia and Tennessee, thereby giving the town the distinction of being half in one State and half in the other. Most everybody down there writes the address like this: "Bristol,



DID THE SPOT-
LIGHT MAN INFLICT
THE TORTURE?

Virginia-Tennessee."

The "wizard of the Bristol Gretna Green" is Parson Burroughs. At the time that I visited Bristol, his books showed a total of over 3,200 couples who were wedded in his parsonage.

The chief reason for the use of Bristol as a Gretna Green is this: Under the Virginia laws, consent of parents is needed up to a certain age, while, under the Tennessee laws, you may marry at any old time without consulting the wishes of pop or mother.

Naturally, Rev. Burroughs's parsonage is on the Tennessee side of Bristol's main street, and a number of his patrons are brides wishing to be joined in wedlock to railway men, especially those of the Norfolk and Western, the Southern Railway, the Virginia and Southwestern, and the Virginian Railway, all of which meet at Bristol.

Just before I reached Bristol, Parson Burroughs married couple No. 3,199.

"Now," said the good man, after No. 3,199 had departed, "just one more happy pair, and I'll round out an even thirty-two hundred."

Hardly had Parson Burroughs spoken, than—buzz! buzz! sounded through the parsonage. The electric door-bell was ringing.

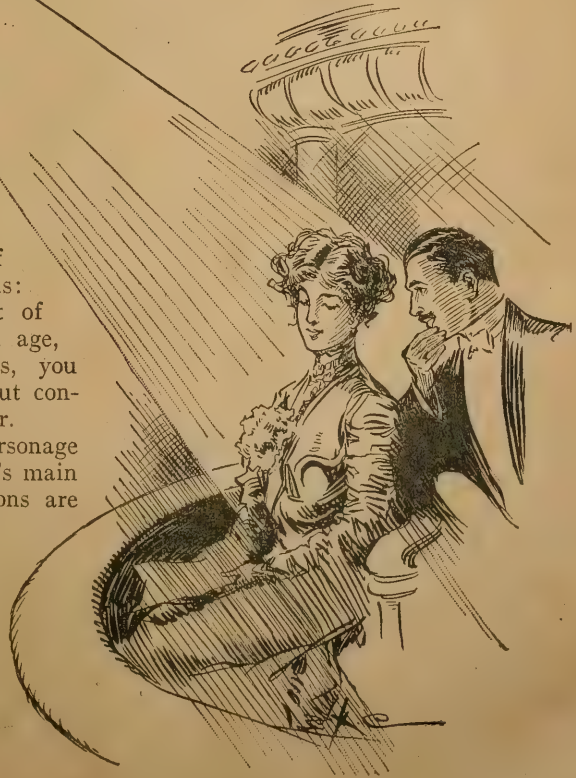
The housemaid flew to the door and presently ushered into the parson's study a blushing bride-to-be and an anxious-looking groom-to-be, both from Virginia, of course. She was a "railroad girl" and he a Norfolk and Western operator from Rocky Mount.

"Pearsey McNeil," said Parson Burroughs, "do you take this woman—? Margaret Partlow, do you take this man—?"

"I do."

"Amen!" concluded the parson. "And now, my children," he added, "you're No. 3,200, of which, perhaps, over a thousand were, like yourselves, railway folks. And I allow that, when I make the record public, Brother Evans, over at Elizabeth City, will be somewhat astonished at the figures."

The Elizabeth City to which the good Parson Burroughs referred was a second Gretna Green for couples from Virginia, this rival town being just over the boundary in North Carolina, on the Atlantic Coast Line.



It also happened that, on the very same night on which couple No. 3,200 came to Parson Burroughs, another couple in railway life appeared at the Elizabeth City Gretna Green to be united by Parson Evans.

This couple had come down from Norfolk, the groom being Keeling Thomas, manager of the Norfolk News Company, and the bride was Lotta Lowery.

They really had no need to elope, for the parents on both sides had given their consent, and everything was lovely. But they ran away all the same—from the great number of their railroad friends.

Because, when the railroad men of Norfolk had learned that the manager of the Norfolk News Company intended to marry pretty Lotta Lowery, they prepared to celebrate the occasion with a big noise. They secured scores of pots and pans and cowbells. Horns and whistles and firecrackers were also brought into the program. They planned a noise that would have made the battle of Manila but the cheeping of a spring robin.

Hearing of all these preparations, the bride-elect said to the groom-elect:

"Let's give them the slip. Let's fly to the Gretna Green at Elizabeth City!"

That's why they appeared at the parsonage of Rev. Evans.

"But we'll get 'em yet," said the railroaders at the Norfolk Station. "They're returning here to-night, and it has been announced that they will occupy a box at the Colonial Theater. We'll get 'em, all right."

That night, at the Colonial Theater, the spot-light man had orders to train his light directly on the bride the moment she appeared in the box, and to keep it on her during the entire show.

Then, too, one of the comedians was given a ballad written by one of the bridegroom's friends entitled, "When the Boss of the Newsbutchers Came Back with His Bride."

Thirdly, all the instruments of noise were distributed among the railway men and others in the audience, the plan being to let loose the din the moment "The Boss of the Newsbutchers" appeared in the theater.

Did the spot-light man inflict the torture? Did the comedian sing his ballad? Did the audience unleash the noises?

No! "The Boss of the Newsbutchers" and his bride went to another theater.

The audience, the spot-light man, and the theatrical company cried as one man: "Stung!"

Meantime, Parson Burroughs, at the Bristol Gretna Green, had made public the fact

that he had joined couple No. 3,200 in holy wedlock, and he felt sure that Brother Evans, at Elizabeth City, would gasp with astonishment.

"Only thirty-two hundred!" exclaimed the Elizabeth City parson upon hearing the news. "Dull marriage market over there at Bristol. Now, my city has a record to date of over four thousand wedding ceremonies performed for couples from Virginia, including, perhaps, some fifteen hundred brides of railroad men."

And all Bristol cried as one man: "Stung!"

The Bet She Lost.

The Senate of Georgia sat in solemn convocation, listening to a speech by one of the "cracker" Senators on "Why the Railroads of Jojah, suh, Should Be Pushed Into the Atlantic Ocean," or something to that effect, when suddenly one of the listeners, after looking up to the visitors' gallery, whispered to his nearest colleague:

"That young lady up there, suh, is the daughter of the general passenger agent of the Seaboard Air Line here in Atlanta. Our friend's invectives against the railroads probably interest her exceedingly."

"What's more," answered the colleague, "she's the granddaughter of General Stonewall Jackson, suh, and I propose to move that we take a recess in order to do her honor."

A quarter of an hour later, after the Senator had finished his harangue against the dreadful railroads, the Senator who had told his friend that the young woman in the gallery was Stonewall Jackson's granddaughter arose and suggested that the Senate, as a body, take a recess of half an hour in honor of the distinguished visitor.

The recess went into effect immediately, and the young lady was brought down on the floor, all smiles and blushes and filled with astonishment.

The name of the beautiful young girl to whom all the Jojah solons now paid their respects was Miss Julia Jackson Christian. Her companion of the occasion was Mr. Rand Preston, of Charlotte, North Carolina, a former legislator of his State and a lawyer of prominence in his town.

That same night, General Passenger Agent Christian, of the Seaboard Air Line at Atlanta, said to his daughter:

"So you ran away to the Senate to-day, did you, hand in hand with Preston?"

"Yes, father," replied Miss Julia. "And if you don't watch out," she added, with a smile that dimpled her cheeks bewitchingly, "we'll run still farther away and—join hands forevermore."

"Bet you ten dollars, Julia," said Mr. Christian, "that no romantic child of mine ever could elope and marry without my stopping the proceeding—if I wanted to."

"What for? A wedding present?"

"No. To pay your gambling debts. Didn't you bet me ten dollars that you would stop any child of yours from running away to marry? And didn't I raise you ten? Twenty dollars, please."

"No, my dear, I won that jackpot myself."

"How do you mean, father?"



THE BRIDEGROOM EAGERLY PEELED OFF A TWENTY AND HANDED IT TO HIS FATHER-IN-LAW.

The very next day Mr. Christian received a telegram reading something like this:

En route for Salisbury, North Carolina. Will marry at midnight. You will have to hurry. I raise your ten to twenty and play my hand to win with Rand Preston as partner.

Twenty-four hours later, when the happy runaways returned to Atlanta, having been married in Salisbury in the presence of dozens of friends who had been let into the romantic secret, the bride said to her father:

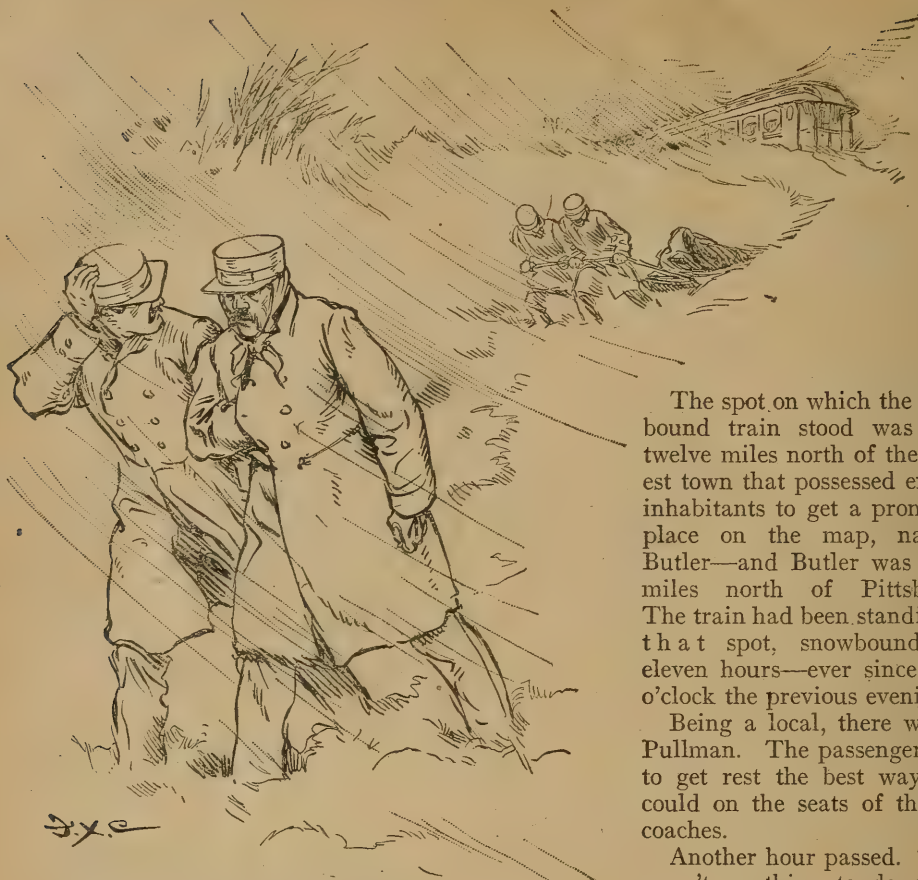
"Twenty dollars, please."

"I said I could stop the proceeding—if I wanted to. Well, I didn't want to. Twenty dollars, Mrs. Rand Preston, please."

And the general passenger agent of the Seaboard Air Line smiled grimly as the bridegroom eagerly peeled off a twenty and handed it to his father-in-law in behalf of the very up-to-date railroad girl who had lost the wager.

The Baltimore and Ohio Polar Expedition.

Conductor Leary awoke and looked out of the frosty car window. A trainman on the



THE TWO MUSHERS STARTED AHEAD TO PICK A TRAIL
FOR THE "DOGS."

seat opposite, woke up, stretched himself, and did the same.

"The whole country looks like a picture out of one of Peary's arctic stories," said Conductor Leary.

"And the snow still coming down in sheets," yawned the trainman.

"We may be stalled here some hours yet," the conductor said cheerfully. "It's good there ain't more women aboard."

"Yes! Only two women-folks, thank Heaven!" responded the trainman.

"One of 'em looked like she wasn't feelin' well when I last passed through her car about three o'clock this morning," the conductor announced.

"Sufferin' from lack of food, lack of sleep, or lack of warmth?" asked the trainman.

"You can search me." The conductor shrugged his shoulders in the fashion of the Pennsylvania Dutch.

This occurred on train No. 9, of the Baltimore and Ohio Railroad, just at daybreak.

The spot on which the snow-bound train stood was some twelve miles north of the nearest town that possessed enough inhabitants to get a prominent place on the map, namely, Butler—and Butler was many miles north of Pittsburgh. The train had been standing on that spot, snowbound, for eleven hours—ever since eight o'clock the previous evening.

Being a local, there was no Pullman. The passengers had to get rest the best way they could on the seats of the day coaches.

Another hour passed. There wasn't anything to do except for all hands to try to keep warm and wait for a snow-plow to come up from Butler

and dig out the train. Just as Conductor Leary's watch announced eight o'clock, an excited whisper passed from one to another of the passengers, and presently there was a wild commotion in all the cars.

To enter into particulars, it may be stated that, at exactly 8.01 A.M., one of the two women passengers rushed into the car in which Conductor Leary and the trainman were trying to snatch one more cat-nap, and announced that the stork had entered the forward coach, bringing a baby girl.

"And the mother's got to be taken to a hospital right away," stated the herald of awful tidings.

Conductor Leary was equal to any emergency of railroading. With all his readiness, he spoke as follows:

"Madam, please assure the mother and child that they shall be transported at once to a proper place."

He turned to his trainman, saying: "Come with me up to the baggage."

On the way forward, he continued: "We've got to fit out a polar expedition just like you read about in Peary's stories. We've got to have a sled and cushions for the sled, and dogs and harness for the dogs, and mushers, whatever those are."

In the baggage-express car, Leary gave orders for the men there to yank off two of the wooden slats forming the latticed partition separating the baggage from the express.

"They'll do for the runners of the sled," quoth Leary.

While the men yanked off the slats, Leary himself removed the screws from the hinges of the cupboard door.

"Now," he said, "with these same screws we'll fasten this door to those runners."

A few minutes later, as good a sled as a Peary could want in an emergency had been constructed. Upon it were placed a lot of empty mail bags for cushions. Then Leary pulled the bell-cord out by the roots and cut off yards and yards of it, saying:

"And there's the harness for the dogs."

"Who's the dogs?" asked a trainman.

"You're one of 'em," said Leary. "And the other shack will be the second dog. See that smoke there?" (pointing through the window)—"well, it's about three miles off. You two will have to pull this sled to that smoke. The smoke is coming out of the chimney of a farmhouse, and farmhouses usually contain all the concomitants for a proper reception in such a case as this."

"You talked about needing mushers, whatever those are," said one of the trainmen who was to play dog. "Who'll be the mushers?"

"I will be one musher," said a traveling auditor of the Baltimore and Ohio, who had come into the baggage-car to get away from the wild excitement of the coaches.

"I'll be a musher, too," said a traveling inspector of the Baltimore and Ohio.

The sled was launched upon the beautiful snow, and the mother and child were tenderly carried out and laid upon it. The two trainmen got into the bell-rope harness, ready to pull for the big smoke. The two mushers started ahead to pick a trail for the "dogs."

"Peary himself couldn't do better," said Conductor Leary complacently. "But look here!" he added, turning to the mother. "where does your friend hail from? I must report this increase of population, and I need exact details."

"She's from a place called Frost, and was on her way to Butler," she replied.

"Frost, eh? I've an idea!" cried Leary. "What's the matter with this train-crew

adopting this kid right here and now and naming it Frostie, in honor of the town its mother hails from? Frostie listens kinder girlish, doesn't it? All right! Frostie let it be. And I move that this crew"—here waving his hand to the engineer, the fireman, the two trainmen, and the two traveling railroad men—"I move that we railroaders give three cheers for Miss Frostie, and that herewith, too, we pledge Miss Frostie the protection of this train-crew as long as a man of us shall live."

"Hooray! Hooray! Hooray!" cried all the crew, swinging their caps in the air, and letting the snow fall upon their bared heads.

"You're off!" yelled Conductor Leary. "You're the first polar expedition ever sent out by the Baltimore and Ohio."

For a long time after that, whenever a Baltimore and Ohio man met Mrs. Mary Debur at the station at Frost, Pennsylvania, he would ask:

"And how's *our* little Miss Frostie?"

"Mother Allen."

A box-car, minus its trucks, stood near the railroad tracks and in it lived the best-known railroad girl on the Delaware division of the Pennsy.

The car stood there for fifty years, and was removed only two years ago. It was the first freight-car run over the division, and was presented by the railroad to a section foreman named Edward Allen, away back in 1856.

Allen died in 1893. His widow, Amanda Allen, is the heroine of this tale covering a half-century of life in the famous box-car at Seaford, Delaware.

During that time she first "sistered," and later "mothered," the men connected with the railroad between Clayton and Cape Charles.

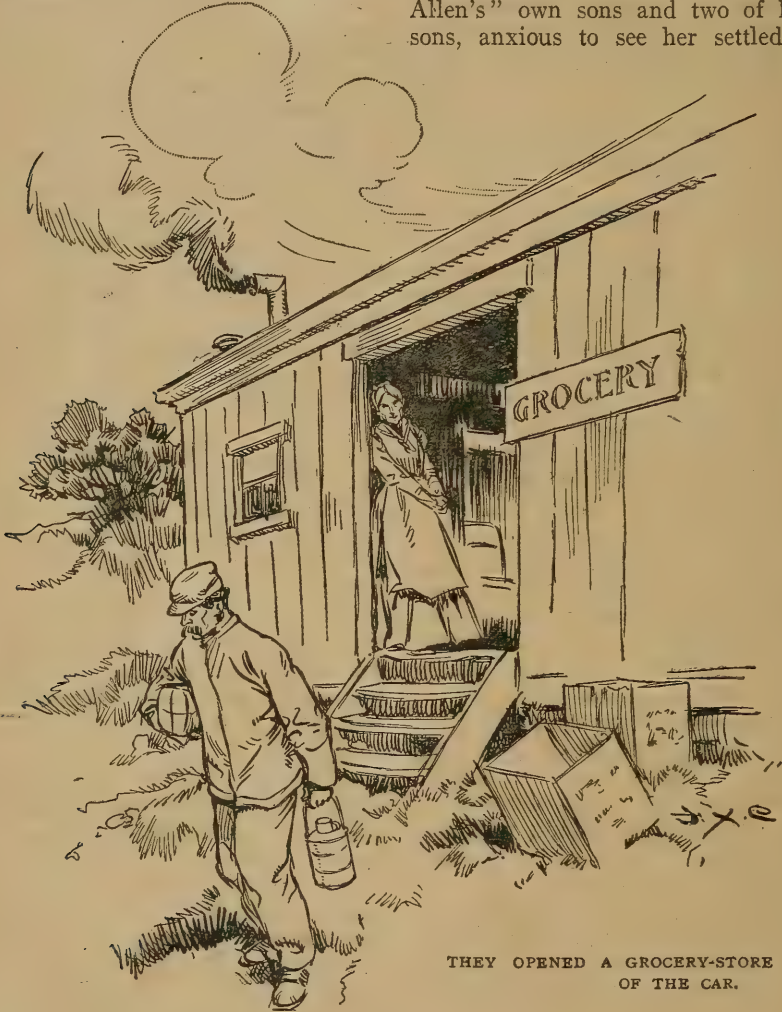
When Amanda Allen and her husband first took possession of the home presented to them by the railroad company, they opened a grocery store in one end of the car and established living quarters in the other end. Allen grew rich, had no use for banks, and stored his money in chests in the car. Thus he left his widow considerable "funds in hand."

Seven children were born to them in the car, and all were brought up to manhood and womanhood within that unique home.

Whenever a railroad man of the Delaware division got into trouble, he went to "Sister Allen" for advice, and sometimes for more

substantial help—which he invariably received.”

Every Christmas, and also on their birthdays, “Sister Allen” remembered the boys with useful presents. Railroaders who lived at Seaford and were taken sick were nursed by “Sister Allen.”



THEY OPENED A GROCERY-STORE IN ONE END OF THE CAR.

When her husband died, “Sister Allen” was then sixty-four years old. The day after the funeral of her life-mate, a track-walker was seriously hurt, and she had him brought into her box car, where she nursed him back to health.

It was he who changed the title of “sister” to that of “mother,” and from that time the railroad men called her “Mother Allen.”

It then came to pass that her children and her railroad sons began begging her to buy a more comfortable home for her old age.

“No,” she said. “This car is dear to me. It has many precious memories. I’ll not leave it. Besides, if I moved into a real house, the railroad men would not feel privileged to drop in as they do now whenever they need a helping hand. I’ll stay here.”

Toward the end of her life, one of “Mother Allen’s” own sons and two of her railway sons, anxious to see her settled in a real

house, such as she could well afford to buy, made these amusing announcements:

“I will never get my hair cut again, Mother Allen,” said one of the railroad sons, “until you move out of this car.”

“And I,” said a second, “cutting the top button from his coat, “will never permit this button to be sewed on again, nor will I buy a new coat, until you move.”

“And I,” said Edward Allen, her own son, “will go away and be an actor unless you consent at once to move.”

But "Mother Allen" still refused to budge. One railroad son's hair grew down his back; and the second son's coat continued buttonless at the top; and the real son, Edward, went away, as he had threatened to do, and became an actor in Ethel Barrymore's company.

Suddenly, in May, 1907, "Mother Allen" at length surrendered. She declared that if only Edward would come home, she would move into a real house.

A few days later, Edward Allen, then in Illinois, received this telegram:

Come at once. Mother will move into a fine house to-morrow.

Edward was prosperous. Nevertheless, he

left the stage and hastened to Seaford, Delaware, to remain there long enough to see his mother installed in her new home.

He arrived at his home town and hurried to the box car. A large number of people gathered around, including every railroad man who had been able to get off duty.

Crape hung from the side of the box car. Carriages stood in line behind a hearse, in which pallbearers were placing a casket.

The next day the son with the long hair went to the barber; the second son got one of his sisters to sew the top button on his coat; and Edward Allen resigned from the theatrical company and stayed in Seaford.

"Mother Allen" had moved to a new and better home in another world.

INTERNATIONAL RAILROAD BOARD.

STEPS have been taken by the United States and Canada toward the creation of a joint international railroad commission for the control and regulation of international freight and passenger rates between the two countries. It is regarded as the most important step taken in many years in furtherance of the cordial relation between these two countries, and is taken also as an indication of the spirit with which the United States and Canada are to work out their question of reciprocity. This is the first formal move ever made in this country toward the regulation of international railroad rates.

The preliminary step taken by the two governments consists in the appointment of Martin A. Knapp, chairman of the United States Interstate Commerce Commission, and J. P. Mabey, chairman of Canada's Railroad Commission, as a committee to consider the advisability of the creation of such a commission. The two chairmen are to meet at an early date, and report back to their governments. There is little doubt in Washington that they will report in favor of the international commission.

The actual creation of the commission will be the result either of the treaty agreement between the two countries, or of concurrent legislation by the countries, or, possibly, both.

If an international commission results, it will be composed partly of Canadians and partly of Americans. The powers possessed by the Railroad Commission of Canada are broader and more comprehensive than those now possessed by the American commission. The Canadian Railroad Commission, it is said, is practically able to fix rates, but the

power of the international commission as applied to American roads would have to fall considerably short of this.

Such a movement would develop railroad traffic between Canada and the United States. The traffic over the border, especially in Minnesota and other Northwestern States, has been increasing by bounds in the last few years, and it is the belief that the near future will see a further marked development in this direction.

The Interstate Commerce Commission of the United States and the Canadian Railroad Commission, acting individually, practically control international rates between the two countries. The Interstate Commerce Commission, in the case of a rate over an American road to a point in Canada, compels the railroad to file not only the rate to the point of destination, but the proportion of the rate charged to the border. The commission thus insists upon the rate to the border being just and reasonable, and the Railroad Commission of Canada exercises its power after the road crosses the line.

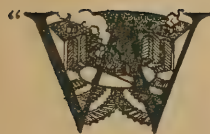
Under present conditions of individual effort, however, neither the United States commission nor the Canadian commission has been able to compel the maintenance of through, or joint rates, to international points. It is in this connection that railroad experts expect the greatest benefits to flow from a working agreement between the two governments. The through rates to Canadian points, in most instances, now are made up chiefly of the aggregate of local rates, which are said to be higher than through rates would be.

Everybody counts. A careless section hand can wreck a careful engineer.—Facts and Fancies of the Old Man.

WHEN O'DONNELL STOOD PAT.

BY MARION PATTEN LINDSLEY.

A Colossal Game of Bluff, in Which Sheer Nerve and a Stiff Upper Lip Saved the Day.



“WILL I accept it?” said O'Donnell excitedly, putting a pair of his wife's stockings into his suit-case by mistake, and seizing a couple of col-

lars and some handkerchiefs.

“I will. ‘Would it suit my convenience to report to Mr. Davis in Chicago on Tuesday afternoon?’ ‘Would it suit my convenience?’ Well, if they wire, just tell them all you saw was the streak I made as I hit the pike for the depot to get there.

“‘Would I accept the position at four thousand a year?’ Would I? Would I turn somersaults all the way to Chicago to get the raise?”

“Here, William O'Donnell,” said his wife, “you go sit down somewhere and get hold of your emotions while I pack this suit-case. What use are you expecting to have for a pair of my hose and two jabots?”

He mopped his brow and paced the room nervously until she finished packing. Then he threw his hat on his head, where it sat jauntily askew, seized the suit-case and started.

“Now, remember, William, not to spend any more money than you can help,” called his better half cheerfully from the front door. “It's all we have to see us through this month's bills. It doesn't seem really necessary that you should take eighty dollars with you. It ought not to cost you over twenty at the very most. If Watkins presses for payment, I'll simply have to wire you for money.”

“Well, you wire and I'll send it at once.”

“A good woman, Maria,” thought he, “but a little too close to be real broad-minded. His money went with Irish indifference to saving, and he was always in high feather while it lasted, though often lost in wonder as to what had become of it when it was gone. Sometimes he was disheartened and blue for as

long as three or four hours over the depletion of the exchequer.

Then it was that Maria always proved her value as a helpmate, for she brought out loose change from some hidden place, or showed him a balance on her bank-book which covered the deficit and enabled them to worry along until the next salary day.

Maria was slow, but sure and steady. When Bill saw a thing he wanted, he went after it in leaps and bounds and somersaults. Often in his enthusiasm he fell over the desired object and rolled on beyond it, while some calmer and better balanced individual picked it up behind him. Maria, however, always approached the object of her desires in a conventional jog-trot and by an orthodox and well-traveled route. On arriving, she often found that some one, less painstaking as to methods, had reached it by a short cut, and that there was nothing left for her but disappointment.

But both were philosophical, though in ways as widely different as their personal appearance. Bill was short, rotund, and mercurial, with a twinkle of recklessness in the shrewd gray eyes that laughed out at the world engagingly. Maria was angular, tall, melancholy, and had a peculiar set to her chin that frightened children.

On the way to Chicago Bill read a dozen times or more the letter offering him the position with the Overland Pacific. It was a rare streak of luck. He was thrilled with excitement to think that at last he was to meet Davis, the man who had arrived at the heights whither he was feebly striving.

He had always regarded Davis with awe and reverence, and it would be quite a wonderful thing to meet him and give him one or two of the really good ideas he had for the betterment of the road, ideas that had been formulating in his brain for months.

After all, four thousand a year wasn't so much. Davis, no doubt, got treble that amount, possibly more. If he could make them raise it to five thousand Maria could have that house she had wanted to live in so long; there could be a new rug for the parlor, and really the girls were getting at an age where they liked nice furnishings when their young men called. He had a vision of their joy as he came in and carelessly announced:

"Well, girls, how about that new rug for the parlor? Maria, better pick out a fine one to fit the floor of that Seventh Street house while you are about it.

"Nan, you might see about trading in your old piano for a new one.

"Alice, did you say something about wanting art lessons this winter?

"Myra, you may take that trip to Chicago with your chum if you want to."

He beamed with such satisfaction that the wry face of a sour-looking woman across the aisle relaxed into a sympathetic smile, and she offered him her paper to read. His mind wandered from its columns to the things Maria and the girls would have.

Privately, he did not yearn to hear music. As for art, when Alice, with a soulful expression, had once asked him what he thought of the flesh-tint values of a Bouguereau, his sole exclamation had been a shocked, "Gosh!" But he loved his wife and daughters, and liked to have them take an interest in culture. They were warm-hearted, loyal folk, and he was proud of their little accomplishments and successes, and proudest of all that they loved him.

His mind wandered back to Davis. Why was it, he wondered, that Davis should be at the top and he only a tenth way up? A headline in the paper struck his gaze—"The American Game of Bluff."

Suddenly he remembered a friend of Davis's saying to him once, "No wonder he got there, O'Donnell. Why, that man can bluff through on a pair of deuces as if they were four aces, stand pat, and get away with the whole jack-pot."

His active imagination gripped a new idea and wrestled with it all the remainder of the trip. He left the train with as happy a smile as though the eighty dollars in his pocket was not all the ready cash he had in the world, and ensconced himself in the bus of the most expensive hotel in the city. On arriving, he walked into the building as if he owned it.

"Give me the best suite of rooms you have," he said to the clerk, in an offhand manner.

"The royal suite is empty, but it is twenty-five dollars a day—"



'ALL YOU SAW WAS THE STREAK I MADE.'

O'Donnell flung down two twenty-dollar bills and a ten.

"Call a bellhop," he said shortly. "Can a man get any service in this hotel, or can't he?"

In an instant the clerk and several servants were buzzing about him. At last he was left alone with a little \$3.85 suit-case in the midst of sybaritic splendor. He walked around looking at the pictures and feeling the plush of the furniture. He noticed that the suit-case reposed on a costly inlaid table, snatched it off, and wandered about looking at the details of the apartments. In his admiring

and awestricken amblings he encountered his image in a pier-glass.

"Gosh! What would Maria say?" he inquired of it. The image received the query with a look of solemn wonder, which changed rapidly to nervous anxiety. He fixed it with a disgusted frown, which gradually melted away under the warmth of the twinkle in his eyes.

"Billy O'Donnell," he said chuckling, "if Davis could, you can, too. Anyhow, you're going to stand pat and get a heap of fun out of it. So who cares?"

Seating himself at the mahogany desk, he inscribed a brief note to Mr. Davis, informing him that he, William P. O'Donnell, was at the ——— Hotel; would be too busy to see him that evening; expected to be very much engaged the following morning, but would be pleased to see him at two the following afternoon if he would call.

He perused the note with interest, dispatched it, and set about killing time until the appointed hour, cheery, but with many grave misgivings. Twice he had to restrain an almost unconquerable impulse to go look Davis up in a meek and humble spirit befitting the situation, and express his abject willingness to accept the proffered position.

At a quarter before two the next afternoon, he ordered a box of the finest cigars the hotel afforded. Stuffing half a dozen of them into his pocket, he placed the box conspicuously on the center table. The next fifteen minutes went like hours. As the clock on the mantel pointed at two he began smoking to quiet his nerves. At three minutes past two Mr. Davis's card was brought to him by a gloomy-faced bellboy.

"Very good," he said, putting a dollar in the boy's hand. "Very good. Just tell the gentleman I am busily engaged on some highly important matters, and will be at leisure in ten minutes. Ask him to wait, and bring him up in ten minutes or so. There's another dollar where that came from if you don't let him get away."

"I'm on," said the boy, with a wink.

O'Donnell seated himself in front of the clock.

"Well, will that ten minutes ever pass?" he asked himself anxiously. "What if he should go?" He started for the bell, but restrained himself and paced the room, back and forth, back and forth. Four minutes, five minutes, six minutes, seven—

The strain was too much, and as the eighth minute passed, he seized the phone and asked to have his caller brought up to him.

While pacing back and forth waiting, he saw two prosperous looking men pass his open door from a room just beyond. They met Davis and the bellboy just as they turned the corner into the corridor. One of them he recognized as the president of the North Central Railroad, whom he knew by sight. He noticed that Davis bowed and turned to stare after them with a peculiar expression on his face, and the thought flashed through his mind that they would naturally be supposed to have come from his rooms.

He met Davis with outstretched hand, and they sized each other up with quick, shrewd glances. Strange to say, he was perfectly cool and indifferent now that the crisis was upon him. Davis was puzzled and interested.

"Sorry to have kept you waiting," explained O'Donnell, with magnetic winsomeness, "but it was unavoidable. Have a cigar?"

Davis's eyebrows went up a trifle as he noted the name on the box and took in the expensive overelegance of the suite. He settled himself comfortably in an easychair facing O'Donnell, who at once plunged into the main subject between them.

"Now, Mr. Davis, about your offer—the assistant attorneyship, wasn't it? I fear you and I will not be able to agree. You spoke in your note of a salary of four thousand a year."

Davis's gaze went around the apartments and back to the cigar box. He smoked a much cheaper brand himself.

"From what we heard of you we thought you would about fit the position and that the position would about fit you."

O'Donnell smiled enigmatically. "I have a family to support," he said, and laughed good-naturedly.

Davis blew some rings of smoke ceilingward before he answered. His mind was busily trying to readjust itself to the unexpected discovery that O'Donnell was a wealthier and a higher grade man than he had thought to find him. The rooms must cost twenty or thirty a day, and evidently he smoked the expensive cigars before them commonly, as a number were gone from the box. He looked like the sort of a man who would regard such luxuries merely as an incident. He assuredly was no sybarite. He had every appearance of being a sharp, reliable, forceful business man, with horse sense. He had the reputation of being thoroughly posted on railroad law, and of having almost a genius for persuasion.

"I heard you had some ideas about the joint freight rates on the Overland," suggested Davis tentatively.

"Yes. It is a pet way of mine to utilize

my spare time in studying over the railroad needs and interests. Your road is losing a good many dollars every month on that joint freight arrangement. I have worked out a classification that will save you a lot of money."

"Yes?"

"Yes."

The two men eyed each other in silence a

right here—that is, all but the social part of it. I have various interests, and as you may have noticed, I am a busy man, with a number of irons in the fire lately. Candidly, I like the Overland the best of all the roads, and would like to work to advance its interests and protect them. Several inside facts have enabled me to study out plans for increasing its revenues materially. They are plans which



"THE ROYAL SUITE IS EMPTY, BUT IT IS TWENTY DOLLARS A DAY."

moment, the rings of smoke curling up and vanishing, one by one.

"What is your idea?"

"It is one which I should put into operation at once if I were given the authority to do so."

"I see. Well, how does five thousand a year strike you, O'Donnell?" I am not authorized to offer you more than the four, but frankly I think you are the man we want. There have been a number of changes lately in connection with our road. There would be chances for promotion for you, if you make good, as I have no doubt you will. Our present attorney might resign. In fact, that may be more imminent than is generally supposed."

"If that is your idea, Mr. Davis, I fear our interview might just as well terminate

could, perhaps, be used by the North Central or some other road equally well."

Davis eyed him a moment, the fine network of wrinkles about his eyes meeting the deep lines at the corners of his thin-lipped mouth. O'Donnell noticed that while he was tall, well-built, and prosperous looking, he had the worn, jaded appearance of a man who had lived much on the edge of his nerves.

"What would you say to a salary of five thousand?"

"I should laugh at it and dismiss it from my mind," replied O'Donnell airily. "Have another cigar, and put some of them in your pocket if you like them. This box seems rather better than usual. They are my favorite brand."

"About what," asked Davis warily,



"I COULD NOT THINK OF LESS THAN TEN THOUSAND A YEAR."

"about what would be your idea of an amount that would make it worth while?"

"Well, I could not think of less than ten thousand a year," answered the mercurial Billy, carried away with himself.

"Um-m. That is all our attorney is getting." Davis's inward thoughts were not perceptible on his well-controlled countenance.

"I could materially increase the revenues of the road."

Davis rose to his feet and stood in thoughtful silence a moment or two, and then said:

"Well, Mr. O'Donnell, I am sorry we cannot agree in this matter. If you change your mind let me know during the evening."

"It is not likely I shall change, Mr. Davis. Your call has been very enjoyable, even if we do not agree on all points. The interests of your road are nearer my heart than those of any other, and if you find you can meet my terms it would be a delight to serve you. I will not make other arrangements—not to-day, at least."

Davis went to the window, stood a moment looking out, and came back with outstretched hand.

"Frankly, I am sorry to lose you, O'Donnell. You are the man for us, I am sure. We thought this all out carefully, and agreed not to exceed the amount mentioned."

"Oh, well," said O'Donnell graciously, "life is full of these little unadjustable things. It has been a treat to meet you, Mr. Davis, and if I can serve you personally at any time it will be a pleasure."

They shook hands. O'Donnell permitted a little regret to creep into his cool, smiling expression—gracious regret at his inability to accommodate. In Davis's eyes shone a gleam of strong admiration.

When the door closed after Davis, O'Donnell started to call him back, and had to catch hold of the center-table with both hands to hold himself. The quick impulse conquered, he sank onto a sofa and kicked all the gilt off one of its legs.

"You worse than fool," he groaned. "With your airy refusal of the biggest salary you've ever had offered to you!

You'd best use a little sense and go after him and tell him you'll take what he chooses to give."

He had a flash of intuition.

"No, you can't do even that now. If you climb down, he'll despise you and not want you at any price."

"Oh, gosh, what will Maria say? I won't tell Maria. There are some things a woman never can understand, anyhow. It isn't necessary to tell 'em everything. Maria knows I'm a fool, without a ground plan, front elevation to that effect being sketched out and presented to her by me."

He walked to the window and stood looking out for ten minutes, then wandered back to the sofa again, and seated himself in a little, hunched-up bunch in one corner of it. His thoughts were neither lucid nor consolatory.

After a quarter of an hour, he went to the table and smoked furiously for thirty minutes. By that time his nerves were so unstrung that he could sit nowhere, and he began pacing

the floor. Suddenly he encountered in the pier-glass a queer, round little figure of a man with a countenance of deepest wo. He stared at his image in silence, and shook his fist at it. Then he burst into invective.

"You would, would you? You addleheaded inbecile! You took a flier, didn't you, just because you hadn't brains enough to weight you down? If you will go up in an air-ship of idiocy you must expect to take a hard fall and get your little fool vanity bruised some."

He walked the length of the room and came back to make faces at the reflection in the mirror. "There are just three classes of fools, my son," he expounded gravely.

"There are congenital fools, accidental fools, and just plain damfools. You, my bright boy, have proved your indisputable right to be the leader of the third class."

He rumbled up his gray hair and smiled with deep pity at the wild-looking figure in the glass.

"No wonder," he sighed, "no wonder! You are suffering with an acute attack of megaloccephalitus complicated with ingrowing nerve, and there was no surgeon near to operate and reduce the swelling in your head in time to save you. No wonder you're gone."

"You're a dead one, my boy. You're commercially and financially and particularly dead, with nobody comin' to the funeral. Nobody, that is, but Maria."

This last thought added to the gravity of his expression in a marked degree. He resumed his restless pacing back and forth.

"You play a pair of deuces as if they were four aces! Huh! You've played the deuce all right. You've raised for yourself what William Allen White says they raise in Kansas. You'll just have to munch your crop, my long-eared, silky-haired friend, whether you like it or not.

"William Parnell O'Donnell, you're a sixty-horse-power, silver-plated, double-riveted, mile-a-minute honker, that's what you are. The geese and donkeys just run to die under your tires because they recognize their brother, they do.

"You've thrown away not only your own chances, but Maria's new home, and Alice's art lessons, and Myra's trip, and

Nan's piano—that's what you've done. All those innocent women have to suffer because of your asininity. Aren't you proud of yourself? Aren't you?

"It's all because this gilt and plush and paintings and folderol went to the weakest spot in you and addled your brains, though it is only by courtesy one would call what's in your head brains."

He sat down and tried to compose his thoughts and study the way out of the situation, but an hour's deep meditation failed to bring forth any inspiration. It all came back to the same thing. He could go to Davis and eat humble pie and be coldly refused, or at best be taken on at the original offer of four thousand, though for this last he had no hope, feeling that his apparent prosperity and indifference were what had won and held Davis.

Two hours later he was still lost in painful thought, when a sharp rap at the door aroused him. He had just opened his mouth to call "Come!" when the door opened and a mischievous face peeped in; it was lighted by bright, brown eyes and surmounted by an A. D. T. cap.

Ye gods! The telegram from Maria! Watkins had demanded that his bill be paid and had refused to wait. Truly, misfortunes were thick upon him. He just turned and walked to the window and stood looking out, sad and



"HAH, WOULDST DO MUH HARM."

disheartened, for well he knew that he had not now the wherewithal to meet Watkins's demand. In a moment it penetrated to his consciousness that the room was very silent. He turned in time to see the boy stuffing cigars out of the box into his pocket. He swooped down on him.

"Here, you!" he yelled wrathfully, "that will be about all for you, you young limb!" Grabbing him firmly by the collar, he literally shook him loose from the cigars. But if he looked for repentance or terror he was doomed to surprise.

One look at O'Donnell's jolly face made the boy feel that he was not going to be punished. "Unhand muh!" he cried, impudently, his head on one side. "Hah, wouldst do muh harm? Muh, the sole support of a widowed mother and her orfling cheild?"

"Your widowed mother ought to take her orfle child across her knee and spank him," said O'Donnell disgustedly. "Thé idea of a kid like you smoking! It's bad enough for a man my age. Don't you know what they do with boys that snoop around taking other folks's belongings that way? The police get 'em. I've a mind to see that they get you."

"Oh, I say now, mister, you wouldn't be so mean to a poor little feller what has to hustle fer a livin', would you?" begged the boy, now thoroughly scared. "I never took nothin' bfore, s'ellup me. When I came into this room and saw all this gorgeosity and splendiferousness it kind of went to my head, it did."

O'Donnell's face softened. The "gorgeosity and splendiferousness" had gone to his head, too. Why should he be hard on a fellow weakling?

"When I sees them thirty-dollar-a-box cigars—"

The rest of the sentence was lost on O'Donnell. Merciful goodness! Thirty dollars a box! They were not yet paid for; he had not thought to ask the price, and he hadn't thirty dollars left. He began some lightning calculations. His watch would bring the amount,

perhaps, that would be needed for a graceful exit from the hostelry.

"But Watkins! This thought brought the unwelcome message from Maria to his mind. He took it up from the table, but deferred the misery of reading it to listen to the boy's remarks, which were still fluent.

"An' I don't smoke 'em meself, not muh! I did onct, an' I didn't eat fer a week so's things would stay down where they was put. I gets 'em when I can, an' I gives 'em to the manager. It's just me little graft.

"When I turns me flashlights onto all this gold and them thirty-a-box cigars (O'Donnell winced painfully), I says to meself, 'Here's one of them multimillionaires that throws around five-dollar bills fer tips,' an' the thought of the five dollars you was goin' to give me, and all the rest of it, sort of went to me head, it did. That message is fer you, mister, an' I'm to wait fer the answer."

O'Donnell opened the missive slowly, read it, straightened up with a wondering grin, read it again, and gave a war-whoop of pure joy. He went to the window and stood looking out. The perspiration had formed in beads on his forehead, though the room was quite cool. He wiped his brow several times, during the evolution of an answer. Seating himself at the desk he dashed off a note and handed it to the boy.

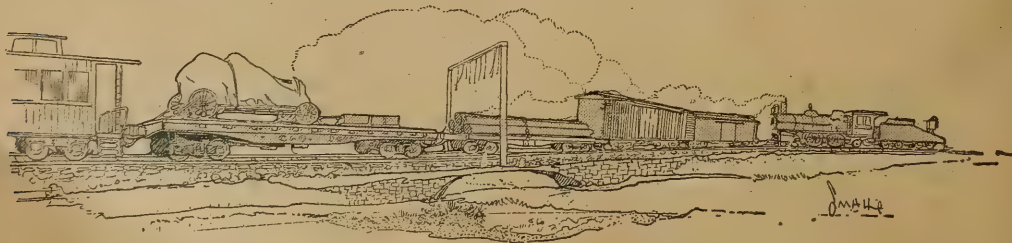
"Wait. I want to send a telegram, too." He thought deeply, trying to compose a message that would meet Maria's approval, and he succeeded admirably, breaking out only on the last word. It read as follows:

MRS. WILLIAM P. O'DONNELL, ATCHISON,
KANSAS:

Appointed attorney Overland Pacific. Salary ten thousand a year. Whoopee.

He mopped his brow again as he watched the door close behind the boy, to whom he had recklessly given a five-dollar bill.

"Well," he murmured limply, with another flash of intuition, "if Davis's bluffs carried him through such hours of particular Hades as mine has me, I wonder if he thinks the game's worth the candle?"



With the Boys of the Northwest.

BY M. G. ROCHE.

WHEN James J. Hill began railroading in the Great Northwest, he stirred things up mightily. It is the nature of this big, progressive man to "keep things on the move," and many are the tales that are told about him. Although he figures in some that Mr. Roche has set down here, there are other live ones of Western railroading, some dating back to those exciting days when the Great Northern and the Northern Pacific first pushed their steel noses into the Puget Sound country.

Still in the Game—Thought He Was Dreaming—The Irish Special—Hill Had Resigned—The Death of "Checks," and Other Good Ones.

DURING the Villard régime on the Northern Pacific, T. F. Oakes was his right-hand man. He succeeded Villard to the presidency, and had direct charge of the operation of the road. Villard was a financier, and Oakes an operating man. Under the latter's management the Northern Pacific's development was something wonderful.

What was once a stretch of barren country, reaching from St. Paul on the east to Portland on the west, became a series of hamlets, villages, towns, and cities, many of the last named growing to metropolitan proportions and peopled by the very best bone and sinew, not only of our own country but of those who have come from abroad.

Back in the early eighties, when Oakes and Hill headed the two great northern trans-continental lines, the competition was more than keen. Each move of the other was watched with hawklike eyes, and every effort made by the one to circumvent the other.

Agreements would be signed one day, only to be broken the next. This grew to such a pass that oftentimes the ink of a signed agreement would not be dry before it was broken.

It is said that the agreements between the traffic and operating officials were of such little weight that finally Mr. Hill and Mr. Oakes themselves came together for the pur-

pose of settling some knotty problem. An agreement was soon reached and duly signed. Lo and behold! the very next day the Northern Pacific president discovered his agreement was no more binding than one made by the general freight-agent.

Forthwith, according to the story, Oakes sought Hill in his private office, and a stormy interview was the result. As they were about to separate, Mr. Oakes said to Mr. Hill, his steel-gray eyes fairly emitting sparks of fire:

"Mr. Hill, I never knew before, sir, that you were such a liar."

"Mr. Oakes," replied the ever-ready J. J., "I never knew before, sir, that you were such a fool as to believe me."

And then they separated.

Since those days Mr. Oakes has retired to private life, having amassed a fortune in Wall Street after quitting railroad work. Mr. Hill, however, continues in the game, and to-day his position as a railroad ruler needs no emphasizing.



THOUGHT HE WAS DREAMING.

THERE is a good story told on Joe McCabe, now a prominent railroad contractor in the East. McCabe was for years division superintendent of the Northern Pa-

cific, and afterward vice-president and general manager of the Washington and Columbia River road, now a part and parcel of the Northern Pacific. When general manager of the Washington road, McCabe traveled in his private car.

Side-tracked one day, when inspecting some construction work, McCabe stood on the rear platform, smoking a two-bit cigar, as was his custom after a hearty dinner.

Along came a tramp, a Weary Willie, a Dusty Rhoads, a veritable hobo. He sized up McCabe and his car, and then said:

"W'at's de chance, guv, of gettin' sumtin' to eat?"

After a moment's thought, Joe said, "Good! Come in!" and, turning to his porter, said:

"Charley, give this gentleman something to eat—give him just what you gave me."

Accordingly, the soup was brought in, then the fish *entrée* and some salad, followed by the roast and all things else which go to make up the dinner of a hearty eater; for such was the genial general manager.

When his grace of the road had eaten his fill, and drunk until he could drink no more, he stepped onto the platform, picking his teeth with a quill toothpick. As he cleared the doorway, the irrepressible McCabe took a two-bit cigar from his pocket, and, handing it to his guest, said:

"Have, a smoke, sir?"

As the tramp lighted it and turned away, Joe said:

"Take another, and smoke it later."

Without as much as "Thank you," the tramp stepped from the platform to the ground. Walking half the length of the car, he sat on an embankment. He puffed at that cigar until it grew so short that he had to stick a pin in it to keep from burning his fingers, so anxious was he not to lose a particle of the fragrant weed.

When the pin grew so hot that he could hold it no longer, he lighted the other, and, with his elbows on his knees and his chin in his hands, he neither looked to right nor left, but slowly puffed, puffed, puffed.

Once again he resorted to the pin. In time that again grew too warm, and what was left of the cigar and the pin dropped to the ground between his poorly covered feet.

Without as much as winking an eyelash, he sat there with his face still in his hands and his elbows still on his knees. He looked to neither right nor left. Finally McCabe said:

"Are you sick?"

Without looking up or shifting his position in the least, the tramp said:

"I'll bet five hun'ed to a doughnut dat I wake up in five minutes."

THE IRISH SPECIAL.

SPEAKING of general managers, there is one in Portland who is rapidly drawing to himself the attention of the railroad world. He is J. P. O'Brien, and, like many another railway manager, has risen from the ranks, and is in every sense of the word a self-made man.

As every one knows, the private cars of railway officials are known by a name or number. The car of the general manager of the Harriman lines is numbered "02," and is known as such.

Several years ago, when Drake O'Reilly was assistant general freight-agent of the Oregon Railroad and Navigation, he went out with Mr. O'Brien to attend an important meeting at LaGrande, in eastern Oregon. The car was, of course, side-tracked during their stay there, and, as is the custom, was inspected. As the inspector was overhauling the trucks and brakes and all such things beneath the car, a car-whacker happened by.

"Phwat have yez there?" said he.

"The Irish Special," was the reply. "The three O's—the 02, O'Brien, and O'Reilly!"

HILL HAD RESIGNED.

IT is frequently said that railroad men handle the truth with economy, and that it is as natural for them to twist a meaning as it is for them to eat. Be that as it may, there is one man I know—and he is one of the most prominent railroad men in the country—who can be as careful in expenditure of that commodity, when he believes the occasion requires it, as any one I have ever met.

Before the completion of the Canadian Pacific along the north shore of Lake Superior, all its business moved via St. Paul and St. Vincent, using the tracks of what was then the St. Paul, Minneapolis and Manitoba. At the time, J. J. Hill was president of the road, and also a director of C. P. R. I was, at that time, railroad editor of the St. Paul *Pioneer Press*.

One evening we had an Associated Press telegram, saying Mr. Hill had resigned as a director of the Canadian Pacific. Of course, as he lived in St. Paul, there had to be some local corroboration.

Accordingly, I called at Mr. Hill's resi-

dence. I found him with Conrad Gotzian, the shoe man. They were great cronies. As I entered the room, Mr. Hill said:

"What can I do for you, Roche?"

"I understand, Mr. Hill," was my reply, "that you resigned from the C. P. directory."

"Nothing in it," said the most prominent railroad man in those parts then, and to-day one of the most prominent in the country.

"But, Mr. Hill—"

"I tell you, Roche, there is nothing in it. I have not only not resigned, but, furthermore, I have no intention of resigning."

Finally he gave me the opportunity of telling him I had an Associated Press despatch which said he had resigned.

"Let me see it," said he. He read it carefully, and, handing it back to me, said, with a smile childlike and bland: "Well, it is true! I have resigned!"

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AN EDUCATED DOG.

POOR old "Checks" is dead. Checks was a dog of the Dandie Dinmont breed, and a more faithful friend never drew the breath of life. Checks belonged to Jim Wright, of the B. and O. T. Company. He was more than a dog, and knew more than many gifted with speech.

Checks was a wonder. He could do everything but talk. Jim was a fool to continue checking baggage when he had such an asset as Checks. To such a man as P. T. Barnum Checks would have been a mint. He could do any sum in arithmetic—addition, subtraction, or multiplication. He could tell the time of day, your age, pick out spurious coin from that coined at one of the United States mints, and at cards he was a corker. Jim was ready at all times to wager that Checks would win three games of casino out of every five he played, no matter who might play the opposite hand.

How did he do it?

I don't know, nor did any one else, unless it was Jim, and he would never tell.

Many a time have I seen Jim put a number of pieces of fractional currency on the floor, and then say:

"Checks, suppose I gave you a half-dollar and told you to go out and purchase two and a half pounds of steak at ten cents the pound, how much change would you bring back to me?"

Without a moment's hesitation Checks would pick up the twenty-five-cent piece and lay it at his feet.

His sums in arithmetic were done by means of playing-cards, which had the figures 1 to 0 pasted on the face. These would be laid on the floor in any old way, and the answers to the problems propounded to him he would indicate by picking up the correct cards.

In the same way he would tell the time. Many a time have I shown him my watch, and to the minute he would tell the time the hands indicated. The first time I saw him do this trick I was going out on the O. R. and N. eight o'clock train. There were a number of other traveling men with me. I had been telling them of Checks and his wonderful powers. They laughed at me. Just at that moment, as luck would have it, Jim came into the car with Checks, for the two were inseparable companions and always traveled together.

"Just in time, Jim," I said; "I have been telling these fellows about Checks, but they won't believe what I say."

Jim was naturally proud of Checks's wonderful attainments, and always ready to show off his faithful companion.

"Show him your watch," said Jim, "and see if he can tell you the time."

We had just cleared the steel bridge over the Willamette. It was eight-ten by the watch. Jim did not say another word nor make a move, so far as we could see. It was I who did the talking.

Without a moment's hesitation, Checks picked up the 8, then the 1, and finally the 0. To say that my friends were astounded is to put it mildly, indeed.

I then asked one of the party the date of his birth, and I'll be hanged if Checks did not tell him his age to the very day—so many years, so many months, and so many days.

Jim carried with him another set of cards. Instead of numbers, the faces of them were covered with the trade-marks of the various roads represented in Portland. Checks could tell you what road any town in the Pacific Northwest was located on.

If any one asked the most popular way to go to Chicago, Checks would invariably pick up the "Rock Island Route" card. In those days Jim De Bevoise was the passenger representative of that road, and he and Wright were great friends. This probably accounts for the dog's partiality.

Poor old Checks's death was very sad. He did not die a natural death. He committed suicide. Of this there is not the slightest doubt, for those who witnessed his death say he deliberately went to it.

It was during the Lewis and Clark Fair. Travel to the exposition city was so heavy that Wright was taken off the road and stationed at the Union Depot. His time was so taken up by business, and there was always such a rush at the depot, that Jim would leave Checks at home. Such a life soon grew too monotonous for the little fellow, and he would a dozen times a day make his way to the terminal station. As often as he would come Jim would send him home.

It was pitiful to see the little fellow with his tail between his legs—you could not see his eyes because of the long hair which covered his face—turn and do his master's bidding. His heart was broken, for never before did he receive such treatment.

One day he evidently determined to end it all. A train was due, and the pavement in front of the depot was lined with hotel buses. Checks stood on the curbstone and watched the weary travelers, but none more weary than he, as they filled the hotel caravans.

The largest and heaviest was that of the Hotel Portland. As it moved away a wild yelp was heard, and the next instant the rear wheel of the heavy bus crushed out the life of poor little Checks.

That it was a deliberate suicide is vouched for by several witnesses. They declared that Checks deliberately waited until the bus moved, and then threw himself beneath the wheel.

Jim heard the cry away off in the baggage-room. He dropped all work and rushed out in time to pick up the mangled remains of the most faithful friend he had ever known.

If there is a heaven to which good dogs go, and regrets will take one there, Checks is now certainly numbered among the canine blessed.

COULDN'T SEE THE POINT.

COLONEL FRED H. TRISTRAM, assistant general passenger agent of the Wabash, and one of the best-known passenger men in the country, had occasion to remark

upon the density of our cousins from across the water.

At the time he was passing through Salt Lake. In the smoking compartment of the Pullman car were three others—two traveling men and an English tourist. One traveling man was telling the other all about the Mormons—how they had made their way into the wilderness to found a Zion and be free from the persecutions of the Gentiles; how they had picked out Salt Lake because of its having some physical resemblance to the Holy Land; how it had taken forty years to build the temple, and how each stone was numbered so that the edifice could be replaced in identically the same shape elsewhere should the Gentiles drive them farther West; how they had carted by ox-team all material and furniture not indigenous to the soil across the desert. In fact, he told him everything pertaining to Mormonism, even unto the tenets of the faith itself.

The fellow was an interesting talker and exceedingly well posted. His talk was new matter to the Englishman, and he was, of course, much interested.

Naturally, in the course of the narrative the name of Brigham Young was mentioned. Said the speaker to his friend:

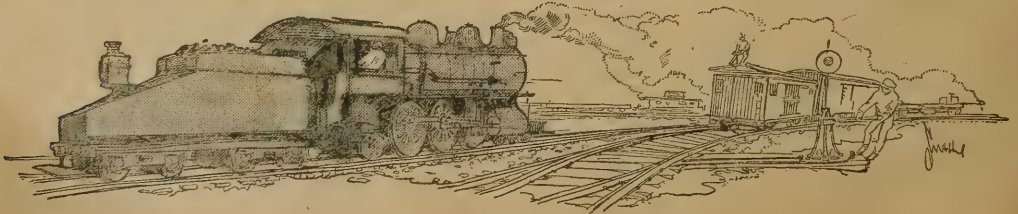
"That, you know, was not the man's real name. It was simply a nickname."

"How in the world did they ever happen on such a name?"

"When the temple was nearing completion the apostles of the church, the ruling power, sent elders broadcast throughout the land to convert the world. Their last injunctions to these elders were: 'Now, we want converts, but we want women mostly. Bring all you can, and bring 'em young.' That's how the first president of the great Mormon church came by the name, which has been handed down to posterity."

The two drummers and Tristram laughed heartily, but the Englishman did not smile. Nearly an hour later, just as they were pulling into the Ogden yards, the Englishman spoke for the first time. Said he:

"I can't see the point of that Mormon story. The man's name, you know, was Brigham Young, and not Bring-em Young."



A HEART OF THE NORTH.

BY GEORGE VAN SCHAICK.

What a Girl Did to Save the Life of the Man She Loved.

CHAPTER XII.

Pierre Is Left Behind.



It took Pierre and Anne Marie a whole day to make Devil's Portage. The snow seemed deeper and interfered with walking. They would take a few steps over the crust and suddenly break through, sometimes knee-deep; and they longed for snow-shoes.

Every mile made in the direction of Lake St. John meant at least twice the actual distance traveled, owing to the obstacles they had to surmount. Up hill and down, across swamps, over rocks and windfalls through *brûlés*, sometimes cutting a passage with the ax, turning to escape heavy drifts, and sometimes falling into treacherous pits in the burned land that was covered with a maze of fallen tree-trunks—there were places where an advance of a hundred yards was equal to the toil of miles over better going.

Twice the dog disappeared, deceived by the thin coating of shimmering snow that covered the spaces between the fallen trees, and it was a task to rescue him, as he was half suffocated by the powdery snow that covered him.

"He's not an Indian dog yet," remarked Anne Marie.

"No, neither is his master equal to a savage," replied Pierre.

If he could have seen her look at him he would have known that to her he was more than a savage or a white man—more than any human being she had ever known, and that in her eyes he was perfect.

When they came out upon the river again, they were just above the *Chute au Diable*.

"From here it is about thirty-eight miles

to the mouth of the river; a good deal less to the first falls," said the girl.

Pierre felt cheered up. After all, it was but a short distance. With good snow-shoes and a hard frozen river, it would have been but a small matter to have accomplished it in a day. An idea came to him.

"Look here, Anne Marie," he said as they sat down upon one of the rocks near the river, "we can't make regular snow-shoes, but we might be able to manage a couple of pairs of skis."

"What is that," she asked.

"A kind of snow-shoe used by people on the other side of the great seas," he replied.

"But we have nothing; we have even left the piece of caribou hide behind, though that would have been no good."

"They are made of a single piece of wood," he answered.

If Pierre had asserted his ability to make a railway engine, she would have believed him. She gathered some wood and began to make tea. Fortunately there was plenty left, although the milk and sugar had been gone several days.

After drinking some of the tea, Pierre decided to try spruce for his ski. He cut down a young tree and split it into long slabs. With the knife they were shaped as well as possible, while Anne Marie looked on curiously in silence. Like all simple people, she could not understand a departure from a long accepted type, or make out in what manner these things were to be used.

Pierre had a good deal of trouble in curving his ski in front. He had to make his slabs thick and shave them forward until he had them rounded to some extent. He worked a good part of the next morning before he had two pairs made and the thongs fastened. On trying them, he found these

had been placed too far back, and had to change them.

Anne Marie watched him in admiration as he ran over the crusted snow with them.

"They're not much good in the thick woods," he said, when he returned, "but they'll do splendidly on ice."

The girl tried them on also and was pleased.

"It is good," she declared, "they will not last long, the wood should be harder, but we can easily make more."

"We will travel far to-morrow, Anne Marie," he declared, quite elated.

"Yes, a long way," she answered smiling.

But her smile vanished fast. If the ice would bear them most of the way, their trip would last but two or three days more. And then? Oh, she could not bear to think of it! It was cruel!

She had known happiness. A new and wonderful element had come into her life. She was toil-worn and hungry, but did not feel the aching muscles and the bruised feet. All that she knew was that she could have gone on, like this, to the end of life by his side. And soon he would be gone, and the world would be dreary and empty.

For the first time her stoicism left her, and tears quietly rolled down her cheeks.

Pierre saw them.

"What's the matter, Ou-memeou," he asked gently.

"I don't know," she answered, endeavoring to smile through her tears.

"I know!" exclaimed Pierre; "you're just worn out. That's the trouble. You've had a harder time of it than I thought, and are played out. Sit down, we can stay here to-morrow and rest, if you like. I guess the grub will hold out."

They sat on a flat rock, and Pierre placed one arm upon her shoulders, as if she had been but a tired chum. Gradually she began to rest some of her weight on his great chest. The murmur of the great falls became heavenly music, and the snow, far in the distance, was converted into a path of light, leading to a *Manito-nats*—a paradise, a place of glory, bereft of cold and hunger, filled with all good things, wherein she would forever sit by this man, with his arm about her.

And Pierre, seeking to dry her tears, as if she had been a weary and sorrowing child, stroked her hands and petted her. Then it was that he realized she had become very dear to him, and that it would

be sad to leave her, and that the toil of their hard trial would be nothing to the tearing asunder of some fibers of his heart that seemed to cling to her.

"Ou-memeou, *ma tourterelle*, it will be hard to leave thee," he said.

And as her head lay in the hollow of his shoulder, his face went down nearly to hers, but suddenly he straightened up and stared fixedly in the distance.

"I love the poor little thing," he said to himself. "But it will not do. If I kissed her once, I would never leave."

In the morning an early start was made, but they could not use their skis in going over the long portage of the Devil's Falls. The going was too rough and hilly. Yet they rejoiced in the idea that, when they came to the river again, they would be able to travel on the ice.

How glorious it would be to get out of these tangled woods. They would have to be very careful and watch out for air-holes and thin places over rapid water, but would make several miles an hour, only taking to the shore when compelled to by the falls and rapids.

With their skis strapped to their backs, they toiled over the long portage. The trees were blazed and it was easy to follow, as compared with so many terrible places they had already passed.

The portage begun to go down hill. In one place it was covered constantly with ice by the spray from the falls. Pierre slipped once, and the girl, who was then behind him, called out to him to take care. He half turned to reassure her, but again his foot slipped and like a flash he was over the edge of the portage, clutching wildly at branches and snow-covered rocks.

The girl threw herself flat upon the path, and, advancing her head and shoulders over the precipitous edge, looked down. He was there, lying upon some snow that covered a flat rock, jutting over the torrent. He was more than thirty feet below her, and made no answer when she called.

She never could have explained how she got down beside him. Clinging to roots and snow-laden branches, resting her feet upon projecting bits of rock, she descended to where he had fallen and flung herself upon him, chafing his hands and imploring him to speak.

She decided that he must be dead, and the light went out of her world. She sat down by him. She never could carry him up the path again, and it was the end of

her life as well as his. She would not be able to bury him. He would stay there, and she would watch him, and the hunger would come, and the cold would make her sleepy, and she would not fight against it, but allow the *mati-manitous* (the evil spirits) which had prevailed against the *tishe-manitous* (the good spirits) to have their way, for she cared no longer.

This was a separation, but not the one she had feared; and, dully, she thought that perhaps it was just as well.

They had been beaten—trapped, like the wild creatures the men brought back—and it was a natural ending. Like them she would await the coming of the Evil One who had set the snare.

Paddy, left above in the path, howled dolefully, for he knew that everything was wrong. His voice touched something in the girl's heart, some fiber long attuned and never before made to vibrate. She broke into a mournful cry and threw herself upon the prostrate form. She kissed the beloved face wildly, again and again, and held it in her hands, as if the great Windego of the Falls had been ready to snatch Pierre from her arms and disappear with him forever.

She noticed a movement of his chest. He opened his eyes and looked about him, not realizing what had happened. Then he saw the girl bending over him, and noticed her tears.

He took several long breaths, sought for her hand and kept it within his, as if finding comfort in it. Finally he said:

"That came near being the end, Anne Marie."

She nodded, and looked about her. A few feet farther on, there would have been nothing to prevent his falling in the grinding turmoil of the wild waters.

As she sat there in silence, she was once more the shy, taciturn daughter of Indians. Her face was inscrutable, the love light gone out of her eyes, her lips no longer quivering. Yet within her there was a heart beating wildly with joy, and she realized that she had been in Hades and had come out.

"It was a knockout," he said. "I was dead to the world. Let's take an account of stock and see what's broken. It's either my head or my foot—or both."

He felt his head, upon which a large lump was rising.

"A good thing it's a hard one, and that thick blanket cap helped a lot. I must try to stand up. Hallo, what's the matter with my foot?"

He was trying to rise, but this gave him such terrific pain that he nearly fainted again, and he collapsed, discouraged.

"I can't stand on it. It's surely broken, or badly sprained, and there's no more walking for me. I'll have to send for an ambulance," he said.

His own incongruous thought revived his spirits. He got up on his hands and knees:

"We must get out of this. I'll manage to crawl, somehow," he said. "Just see if there is any way of getting back to the path."

Again she looked. They were on a flat rock, and a little farther on a great log, cast there by the spring freshets, bridged over a space that separated them from other rocks, above which protruded some scraggy trees that had grown in the earth, washed into crevices. She got astride the log, pushing the snow away with her hands, and crossed over. From rock to rock she reached the place where the trees grew. Just above them there was a steep incline that reached up to the path. By pulling oneself up by their slender trunks, one could reach the portage, but it was a hard job.

She returned and explained the situation. Still on his hands and knees he followed her, got across the log, and, with the girl's help, managed to get over the rocks.

By the strength of his arm he managed to pull himself up the incline to where the trees grew, and finally reached the path and laid down, exhausted and dizzy with pain.

It had taken him over an hour, and at every step he had found the girl's shoulder ready for him to lean on. Twice she actually lifted him.

Anne Marie cleared a place of snow and he lay down. All that the girl could think of then was the universal solace of her people—a cup of hot tea. She made it, strong and black, and he was comforted. A few yards away she found a place where the tent could be pitched. She attended to everything, deftly as usual, and Pierre crawled under his blankets, shivering, while she cooked their supper.

The young man could eat a little, and Paddy, as usual, was ravenous; but Anne Marie, looking over the provisions that were left, drank much tea and ate sparingly. Before entering the tent for the night, she knelt devoutly and prayed earnestly by the flickering light of the camp-fire, for she realized that they were in sore straits.

When she came in, she suggested that Pierre should take off his boot.

"We'll have to cut it," he answered. "I could never stand to have it pulled off. Perhaps we might just unlace it. It might ease it."

She unlaced the boot for him, but it did not relieve the pain. He feared to take it off, knowing he would not be able to put it on again. He decided that if it was only a bad sprain the boot might prevent the swelling and support the ankle to some extent, and left it on.

"We've got to go on, Anne Marie," he asserted doggedly the next morning. "I had as soon bear that pain as to sit in this tent while the food goes and the cold gets worse. I'm willing to stay here if you want to go on without me, and you can send me help when you get to the first falls."

"Very well," she said; "I'll leave you the tent and the food, and will be back as soon as I can."

"Not a bit! You must take the tent. You can build me a little lean-to. Then you must take three of the blankets and half the grub that's left."

She would not hear of taking the tent, and he acknowledged that she was right when she said its weight would make some difference in her speed. Then she showed him that she could get food as soon as she reached the first falls, while he would have to remain until she returned with more.

At this time there was left but about three pounds of meat, less than a pound of bacon, enough flour for four or five flapjacks, and about a cupful of beans. There was still plenty of tea and tobacco.

She was soon ready to start, with a little of the food wrapped up in her blankets and in the waterproof cloth, with which she might make herself a shelter in case she had to camp out. Just then she decided that the present camping-place was bad. It was on a side hill, far from the water. It would be better to have it lower, near the river, where he could see down its course. She moved the tent nearly a hundred yards to a better place, and Pierre managed to reach it by leaning upon her shoulder with one hand.

Suddenly he rebelled.

"Look here, Anne Marie! I can't do it. I'd get the horrors sitting down here and waiting two or three days. There isn't much left to carry. I'll take my share of the grub and blankets and leave all the rest. You travel on as fast as you can, but I'll follow. I'll make crutches."

"No," said the girl decisively. "How can

you use the stick snow-shoes? You would drop somewhere in the snow, or go through a hole in the river. You will freeze to death somewhere."

"I'll worry to death if I'm left here," he objected meekly.

"Then we go together," she answered.

Again she packed up the tent, the blankets and the food.

It was hardly more than one good back load and she swung it to her head with a tump-line. Before this she had made him a crutch—a mere stick with two spreading branches cut short—within the fork of which he could place his armpit. She tied a ski to his sound foot.

Pierre, at times, rested one hand upon her shoulder. Whenever his foot touched the ground he was in pain, but gritted his teeth and went on. It took them half an hour to go a few hundred yards. His uninjured foot slipped once, and he tried to save himself with the sore one. The pain was so keen and fierce that he had to sit down.

"I can't do it, *ma chérie*," he acknowledged.

It was the first time that he had ever used a term of endearment to her, and she wept as she knelt by him.

"Oh, I knew you could not do it. Have patience," she implored. "I can get there and back by to-morrow night or the next afternoon. Please have patience. I will come for you with plenty to eat. I will bring men and dogs. They will put you on a sleigh and take you down easily. Please have patience."

In her excitement she had taken his hand in hers, as she implored him. She was petting it and finally she kissed it—and the suffering man, weary and broken with pain, felt a tear coming. He took the fine, dusky, high-bred little head within his hands, and kissed her for the first time.

"Go, my dear. May Heaven be with you!" he said.

The tent was pitched once more. After she had spread out his blankets and placed the cooking things and plenty of wood near at hand, she started.

Paddy followed her for a moment and then went back to his master. Pierre motioned him away.

"Go on, Paddy boy; go on and bring her back soon."

The dog, barking, ran away to where the girl was disappearing in the distance. The ice was strong and she was running with an

easy lope that promised good time. When he reached her she bent low, patted his head and told him to go back. But he remained behind for only a few yards, and then came up to her again, and followed her on and on.

CHAPTER XIII.

The Long Wait.

ANNE MARIE bent to her task with all the energy that was in her wild, strong nature, without any waste of force. She ran on and on, and the dog followed her with tongue hanging from his mouth, as she came to the rapids of the second falls.

It was like a dream after a while; her eyes burned with the glare of the snow, and the pain of her legs possessed her, and her breathing came hard and gasping, but she went on and on, and the scenery she knew so well became unfamiliar. She was going on mechanically, scarcely conscious of fatigue, impatient where she had to walk, glad when she could run again.

The night was falling when, of a sudden, she recognized the rocky cliffs on either side of the first falls. Just beyond, in hazy faintness, a film of smoke was rising in the air. On the eastern shore there was a log cabin, and she was compelled to go some distance below the falls to find solid ice, in order to cross over.

She reached it at length, and a nondescript dog jumped at Paddy, and a fight followed, in which neither contestant had much the best of it, when Anne Marie, and a woman who came out of the cabin, interrupted the proceedings.

"Quick!" cried the girl. "Where are the men?"

"My man will come soon; he has gone down the river, on snow-shoes. He should be back now. What is it that you want?"

Anne Marie briefly explained her errand. The *monsieur* had plenty of money. It would be well worth their while to help him.

"The poor young man!" exclaimed the woman. "I remember him well. He stopped here on his way up. But come in; you are hungry."

The good soul immediately put water on the stove for tea, and brought out bread, and pork, which she began to fry, and buckwheat for cakes.

"I'll have it ready in a minute. You are perished with the cold. You've run from the *Portage du Diable* in a day. It is twenty-five miles just by the river. You

have made a good deal more by having to go ashore so often. It is a terrible time to travel. Later on, when all the ice is solid, it is easier. It is a hard day's work for a strong man.

"I remember him well. He came all alone. My man said only yesterday that the young fool must have perished somewhere in the rapids. He is a very nice man. He gave my boy some fishhooks, and me a piastre for letting him stay here all night. I did not want to take it at first, but he insisted. It is a good deal of money, of course, and he must be a rich man."

"I wish your husband was here," interrupted the girl. "I suppose he has no sledge and dogs?"

"There is no sledge and team of dogs to be had nearer than the mouth of the river, and that's twelve miles farther down," answered the woman. "Sit down and eat; my man will be here very soon."

She placed the food on the rough table, and Anne Marie ate ravenously. Around her a number of small children stood up, looking at her open-mouthed. The two dogs were lying near the stove, having forgotten their quarrel. The woman put on her *capote*, to go out and see whether her husband was returning.

She returned in a few minutes with her husband, a rather elderly man, much broken by the terrible toil of the settler in hard countries.

"*Bo'jou*," he said. "My woman has told me. I am glad the young fool is not drowned. It is a life to be saved, of course, but we can do nothing now. I will have to go tomorrow morning to the mouth of the river for a sledge and dogs and another man.

"I will start early and be back by tomorrow night. Then the next morning we will start. I don't think we will be able to make it that day, but we will be there early the next one. In the meanwhile you can stay here and rest yourself."

"No, I must take provisions and start right back," answered the girl. You do not understand. He has very little food. He is anxious, and suffers much pain. He is a *monsieur*, you understand, and is not used to hardships like ours. You will come as soon as possible. Make all speed! Promise to come at once!"

The man gave her, reluctantly, flour, pork, bacon, and a quart bottle of molasses.

She slept poorly on the rough board floor of the cabin that night, and was up before daylight. The good people gave her some

breakfast, and she wrapped up the food in her blankets and started. She tried to get the dog to stay behind, knowing he would be well cared for, but he pleaded so, she allowed him to come.

"He will be glad to see you; he loves you," she told Paddy, sadly.

The man promised to start at once; he felt sure that the next night, or on the morning after, he would be at the *Chute du Diable*.

Anne Marie felt stronger. She had borrowed a pair of regular snow-shoes and traveled swiftly. She ran on for an hour until it began to snow hard. Soon she saw nothing but a mist of heavy falling flakes, and the weather grew somewhat warmer.

All day she journeyed, but had to use a good deal of caution. Her former tracks were obliterated, and in many places the treacherous ice was covered. But with unerring instinct she kept on. With the heavier load she carried she was unable to make quite as good time; still, she felt that she could accomplish the journey by nightfall.

When she stopped at noon she felt very weary, but had accomplished more than half of the journey. She was not very hungry, yet she ate a little. Notwithstanding the added hardship of pain, she kept on and on, until, at times, she was dazed with the vast expanses of snow; until it seemed that there never would be an end to them—that she was fighting her way along to some goal that was always receding and never could be reached.

Yet the well-known portages went by, and she knew again every great blasted tree that arose gaunt and sad above the black line of the living ones. She recognized every great snow-covered boulder along the edge of the river; the cliffs, the low shores—the vast places where the water widened over the shoals, and the narrow ones where it raged through rocky cañons.

Finally she came in sight of the promised land. A long way off, as the light was just beginning to grow fainter, she saw the little tent. She uttered a long, ululating cry, hoping that he might hear. But nothing stirred, and she ran on.

Suddenly, she saw him crawling out of the tent on his hands and knees. He waved one hand at her, and she hurried on as if possessed of wings. Now she was hardly a hundred yards away from him and paid no more attention to her footsteps.

To be near him once more, to hear his voice, to give him food, to comfort him in his pain—what happiness!

The ice was bad at that place, owing to the fierce volume of water that ran under it, coming from the great falls just above. Several times it cracked under her, but she paid no heed, and suddenly it broke.

In an effort to save herself she threw herself forward, and the bundle she was carrying fell and disappeared in the loose, slushy ice that was nothing but a death-trap.

Fortunately she only partly sank. Her clothes and the loose ice partly kept her from going under, and she managed to keep scrambling on until, on her hands and knees, she reached solid ice once more.

It all happened so suddenly that she was safe again before Pierre had managed to take more than a few painful steps in her direction.

She ran toward him, wet and weeping.

"The food!" she cried; "the food! I was bringing you plenty—now it is gone!"

He put an arm around her neck, and patted her cheek, as if she had been a sorrowing child.

"Never mind," he said. "Thank Heaven, you didn't go under. Indeed, I am happy to see you safe and well. I have been very lonely without you, *Ou-memeou*."

But she could hardly be comforted. She wept as he made her go under the tent and take off the clothes that were freezing on her. She was soon wrapped up in his blankets, and he built a roaring fire just outside the tent, and hung her clothes as near it as he could with safety.

She told him the simple story of her journey.

"To-morrow night they will be here, with a sledge and dogs, and more food. Or perhaps not until the next morning; but they will surely come."

"Let us hope so," he said. "There is mighty little left."

"I could start back again to-morrow morning," she proposed. "Then I would not need food till night, and at the first falls there is plenty to eat."

"No, don't leave me again, Anne Marie. There is enough for a meal or two, and then we won't have to wait long. The time was very hard without you. I sometimes feared something would happen to you. It kept me awake during the night."

Pierre shivered as he thought again of all he had endured in her absence—the long day during which he had worried lest something should happen to her, and the fierce pain he had suffered from his injured ankle.

Then the night—tenfold longer, never

ending—when the cold had bitten him savagely and the suffering had grown worse and the horrors evoked by his imagination had crucified him!

He had seen her sinking through the ice and disappearing, and the thought that he would perish alone was nothing compared to the feeling that Ou-memeou would never again be near him!

The morning had come at length, and the booming of the great falls had seemed like a portentous voice calling out for lives, lives, more lives. When the snow fell again, it was a white fall, something that blotted out living things. It hid the world and stifled the cries of dying men.

He was thankful indeed to see her again. There was no more fear, nothing but the idea that Ou-memeou was near him, that he could chafe her cold hands in his, that he could kiss her dear face.

But he was shocked to see how dreadfully worn she was. Even during her illness up the river she had not looked so wan. Her dusky Indian complexion had become of a grayish hue.

On the next day they took the bit of meat that was left, boiled it and drank the soup. They also drank strong tea. Then they began to wonder whether the men would arrive that afternoon.

"The new snow has made the traveling hard," said Anne Marie. "I think they will only be here to-morrow."

When they had finally given up hope they went to sleep, very hungry; especially Pierre and the dog, since Anne Marie had partaken of two hearty meals at the first falls. On the next day they finished the little piece of boiled meat, and then nothing was left but a very small handful of rice and beans that they found at the bottom of one of the bags. But it did not matter; the men would come soon.

A any moment they might appear around the distant point, and then, how they would eat! They watched and watched, and dared hardly leave the bank where their lookout was, for fear of missing the first view of their arrival. Yet the hours were passing, and the men did not come.

Then they boiled the few beans and the grains of rice, which made but a couple of mouthfuls apiece, and drank more tea. Far into the night they watched and listened, but no one came over the vast expanse of snow and ice, and the woods were silent but for the wind that sighed through the trees, and the masses of snow that occa-

sionally fell with a dull sound from the overladen branches.

Hunger was beginning to feel very painful. It was a sensation as if something living was gnawing them, but Anne Marie had often been hungry before. She said that this feeling would grow fainter and less troublesome soon, and then the men would arrive. They chewed pieces of leather from their tump-lines to give themselves the illusion that they were eating something, but poor Paddy whined often, and looked at them pitifully. They were very nervous from drinking tea without food.

When the morning came, they were very feeble, but they began to look down the river before it was really light enough to see very far.

Pierre placed his hand on Anne Marie's shoulder.

"I should have let you go back," he said. "It was selfish of me to keep you here. If you are strong enough, perhaps you had better leave me now and try to reach the first falls."

"I am glad," she answered. "I am happy to be here with you."

Her devotion touched him deeply. He knew by this time how dear he was to her. The love light in her eyes burned more brightly since her return. Their hunger and the cold seemed to put them upon a plane of equality. There was no longer a *monsieur* and a poor *Montagnais* girl, but merely two beings who had suffered.

As he looked at her, he began to worry over her thinness and the fact that she was again breathing with some difficulty. He felt no fear for himself, yet a chill passed through his heart at the thought that, if help did come, she might die before him. Yet she said she did not suffer.

Paddy rose restlessly, weak from hunger, and from the toil of preceding days, and begged for food, licking Pierre's hand with his dry tongue. Suddenly his master had an idea.

"Poor old Paddy," he said. "You've got to save us."

Sadly he took the little pistol out of the bag, and Anne Marie asked him what he was going to do.

"The poor old dog is starving, like us," he said. "I can't stand it any more; and you are looking so pale, so ill, you must have something to eat."

"Oh, wait till night!" she cried. "Just this day! You love the little dog! I love him, too! The sledge must come soon. It is two days late; they would not let us die!

They thought I brought back the food, and don't know we are starving! Please let him live!"

"Why, Anne Marie, you savages don't often care so much about a dog."

"Oh, we have to kill our dogs sometimes, but men often go terribly hungry before doing it. You are going away, you know, and then perhaps I will never see you again. Perhaps you will leave me the little dog to remember you by. I will love him much, always, and take good care of him."

Tears were coming down her cheeks, and she looked very feeble. Pierre was suddenly smitten hard, as he realized how this child of the wilderness had learned to love him. Tears came to him, too, and he crawled over to the girl who was lying down, bent over her and kissed her.

"You shall have the little dog, Anne Marie. He will love you, and I will love you also, always."

From the expanse of ice and snow that stretched south of them, came a shout and the firing of a gun. They crawled out of the tent and stood up, and a feeble cheer arose from them. Over the ice came two men and a sledge harnessed to five big nondescript mongrels. The rescuers were shocked to find them in such a state. In a few moments, there was food in abundance, which, at first, they were allowed to partake of only sparingly.

CHAPTER XIV.

Hand in Hand.

THE two men were new settlers on the lower eastern shore of the Peribonca. They explained that their dog team had been borrowed by a neighbor, who only returned it the day after they were notified. They were badly exhausted and had needed a rest. Coming up, they had experienced a hard time, owing to the deep snow and the poor ice, and the difficulty of getting the sledge over the portages. They also said that they were not *voyageurs*, and were not used to such long trips.

They did not possess a tent, and fixed up a little lean-to for the night. They were very tired, and as soon as they had eaten their supper, and fed the dogs, they went to sleep.

Pierre and the girl sat in the tent, looking at each other, wondering at the marvelous new element that had come into their lives.

Pierre felt very serious. He had decided that life with this little girl as a companion would be happy. He cared nothing for civilization. The great North had been very hard to him, yet he loved it. It was the country for him; far from the influence of those whose conduct is all fettered by metes and bounds.

He had savage blood in him, and it called him back. He would have nothing to do with the people of cities. He would trade in the furs of the North, and its lumber and mines. He would help open the country, and when it grew too civilized for him he would move on into the vastness, farther and farther on, and always he would have the love of this girl.

Surely Ou-memeou had in her every element that would make for his happiness. She was strong in mind, in love, in devotion. A rest would build her up again, and she would be his help among the vanguard of those who were uplifting the new empire of the North.

Anne Marie finally broke the silence.

"You must sleep," she said, "unless you want me to get you more food. To-morrow will be a hard day."

"You're a regular little mother looking after her little one," he replied, passing his hand over her head. "We will be out of the woods in a few days, *ma chérie*, and be no longer troubled with hunger and pain. And then we will make a new life for ourselves."

"A new life," she pondered. "The life now is very good."

"Why, Anne Marie?"

"Because," she answered, looking at the ground before her, "because I am with you, and through the cold and into the night that is enough to make a sunshine that warms my heart."

Pierre's arm went around her waist, and he drew her toward him and kissed her pretty oval face.

"I will try to keep the sunshine ever in that little heart of yours," he answered.

That night she had no wish to sleep, for it would interrupt her happiness.

Early in the morning the dogs were fed, the things packed on the sledge, and Pierre was placed upon it, suffering from a deep sense of humiliation at being obliged to ride while the others trudged alongside.

"*Marche!*" cried one of the men.

The dogs bent forward and threw their weights upon their harness, and the sledge slowly broke out, and they were off. Most

of the time the girl walked ahead, distrusting the ability of the two habitants to select the best and safest places. When they came to portages, or were obliged to go ashore on account of bad ice, Pierre generally had to get off the sledge. He would go on slowly, suffering excruciating pains in his wounded ankle. One hand rested upon the girl's shoulder, and he used his crutch with the other.

The rest he had had in the tent, while waiting, had not improved his leg. He could allow no weight at all to rest upon it. He had not taken off the boot since the accident, fearing he would not be able to put it on again, and often wondered what was really the matter with it. It must be something worse than a mere sprain. Sometimes the men had to carry him, and Anne Marie looked on jealously.

(The End.)

NEW MALLET COMPOUND.

Great Northern Develops Special Type of Giant Engine for Its Heavy Grades in the Cascades and Rockies.

A NEW type of locomotive in use on the Great Northern Railroad somewhat similar in design to the Mallet compound is described in the *Spokesman-Review* as follows:

The total length of the leviathan is 92 feet; and it is capable of hauling from 100 to 120 fifty-ton cars on a level track.

The total weight of the engine with tender, is 468,000 pounds, while the tractive effort is about 60,000 pounds.

The rear engine has four pairs of driving-wheels, while the forward has but three pairs. The drivers are 55 inches in diameter. The cylinders of the rear pressure engine are 22 x 32 inches, while those of the forward engine are 33 x 32 inches.

The locomotive as it stands cost \$30,000, and

was built under the supervision of G. H. Emerson, superintendent of motive power of the Great Northern. Mr. Emerson has been in the employ of the Great Northern since a young man, having started in as a fireman in 1881.

The performance of this engine will be watched with interest, for if it does the work it was designed for in a satisfactory manner, the construction of others will follow.

The new engine is designed for use on the heavy grades encountered in the Rocky Mountains in Montana, and in the Cascade range in Washington.

The use of these locomotives does away with the use of double-headers and helping engines on the mountain divisions.

TORPEDO BLOCK SYSTEM.

WOULD railroad wrecks be any less frequent if the engineer, on approaching a point of danger, heard a bomb explode under his engine in addition to the visual but silent signal of the time-honored semaphore or "target"?

R. J. Zorge, of Chicago, who, when he is not selling wheat or corn on the board of trade, is an inventor, thinks he has a remedy for these accidents.

It is a device for exploding a small-sized bomb or a "torpedo" under the locomotive where it cannot fail to be heard both by the engineer and fireman.

It was with the idea of making use of the sense

of hearing as well as that of sight that Mr. Zorge invented his automatic torpedo-magazine, which has now stood the test of a year and a half of continuous service without a failure, it is said, on the Long Island Railroad.

The torpedo-magazine consists of a rotating disk on which are twenty arms like the spokes of a wheel, each holding a torpedo at its extremity.

Underneath the disk is the mechanism for pushing one of the torpedo-arms out over the rail, and the whole is mounted in a cast-iron casing about the size of a washtub, with a cover which leaves a small aperture on the track side through which the torpedo is protruded when necessary.



The Railroad Man's Brain Teasers.

**Perplexing Problems that May Possibly Produce Perfection
in Precision, Perception, and Perspicacity.**

MR. DAN M. POWELL, the N. P. operator at Black River, Washington, sends in the following:

(4.) How many times brighter will the headlight of a locomotive appear at a distance of 2 miles than it does at 6 miles?

(5.) An engineer, half a mile from a station, sees the semaphore light with a certain distinctness. How many times brighter will the light have to be in order to be seen with the same clearness at a distance of 2 miles?

From W. H. S. (address not given), we received this one:

(6.) A train with thirty cars, south bound, and a train with thirty cars, north bound, meet at a siding which will only hold thirty cars and an engine. The switch has thirty bad-order cars on it with draw-bars on at each end, so any of the cars to be moved must be pushed, not pulled. Each engine can only handle thirty cars at one time. Thirty bad-order cars must be left on switch as found. How do the two trains get past the bad-order cars?

The correct answers to these teasers will be found in our October number.

ANSWERS TO THE AUGUST TEASERS.

(1.) Both trains would be the same distance from Albany when they met.

(2.) Suppose the trains have each been running at a given rate of speed for 30 minutes, and that at that time the conditions of the problem are met in so far as equal distance is concerned. In 30 minutes, the flier would travel 30 miles and the freight 5 miles. At the beginning of the run the freight must then have been 55 miles ahead instead of 50. Then we have the following proportion:

$55 : 50 :: 5 : x$. x being the required result, which gives the value of x as 4 miles, 174 rods and 9 feet.

Adopting this result we find that the flier will have run exactly 27 3-11 miles, and that will be the distance between the trains.

(3.) Length of the line, 100 miles. Original speed of train, 25 miles per hour.



ON THE EDITORIAL CARPET.

Where We Keep a Uniform Pressure on Our Crank-Pins,
and Force Quick-Action Wisdom Through the Think Nozzle.

OCTOBER is our anniversary—our fourth whistling post—and we are going to celebrate it by blowing off a few blasts of extra steam, just to show that we are carrying more pressure than ever, and that all our joints are as tight as they were on that memorable day, four years ago, when we started on our first run.

We have been bucking the grade pretty consistently ever since we left the shops, but we have had some mighty good tallow-pots and hoppers in the cab, and as for the cons and the shacks and the rest of the crew—they have been loyal workers who have gathered but a very few brownies.

You know their names as well as the engineer of an old peanut-burner knows a flooded injector, but, next month, we are going to show you some of their faces. For the first time you will be able to look into the countenances of J. E. Smith, Horace Herr, Robert Fulkerson Hoffman, Emmet F. Harte, Robert H. Rogers, Arno Dosch, Cy Warman, and other men who have helped to make this magazine.

It is going to be one hip-hurrah birthday number, with a line of short stories, special articles, and railroad yarns that will make you want to tear the throttle open, drive a wedge in the reverse, and chuck the air-lever out of the window. You won't make a stop until you have reached the last page.

When the con gives the high-ball for the Birthday Special, here are some of the things that will be aboard:

There will be a short story called "A Million Dollars," a tale of ingenious touches and intense speculation of a man who put a pile of gold on public exhibition.

Robert Fulkerson Hoffman will have a story of the tortures that a towerman suffered who was forced to remain on duty for over two days and nights. He had to keep awake all that time. Read how he did it.

R. K. Culver will tell of the scenic enterprises of a certain Westerner in a way that will make you want to tie down the laughter whistle until the end is reached.

Emmet F. Harte will be aboard with another yarn about Honk and Horace—our old friends. This time they encounter a young man of wild-eyed bravado, named Dauntless Dick.

There will also be stories by Frank Condon, F. H. Richardson, and C. W. Beels.

Among the special articles, Arno Dosch will describe the new Bergen tunnel, near Jersey City, a wonderful piece of engineering construction just completed by the Erie. The present-day tendency

of railroads to burrow through the ground as they approach their terminals has been abandoned by the Erie, which believes in a right-of-way of fresh air and sunshine.

C. F. Carter has a most interesting paper about the fine art of running a freight-train. He will give us an idea of the grievances of the freight conductor whose train earns three times as much as the fast expresses which go by with a whirl while he is stewing on the sidings.

The home for aged and disabled railroad men at Evanston, Illinois, will be the subject of a special story.

Robert H. Rogers is preparing an interesting article describing, at length, the Walschaert valve-gear. It will probably go in the Birthday Special, but may be held for another month. We have had a great many requests for this article, and promise that it will be the last word on this interesting and timely subject.

In "Ten Thousand Miles by Rail," Gilson Willets will tell of the romances of the Crescent City railroaders—and they are the sort of romances which can only be credited to railroad men.

And then, "The Observations of a Country Station-Agent!" We would just as soon start on a night run without a headlight as to publish an issue without the quaint humor of our cheerful philosopher—J. E. Smith.

Yes, the Birthday Special will be a train of bright new steel cars with new uniforms for the crew, and everything in the best order.

The semaphore's down for October!

A LOCOMOTIVE'S LONG SUIT.

IN another part of our magazine this month, there is an article which, under the title of "The Best-Tailored Individual on the Line," sets up a 'spick-and-span new signboard at the various crossroads of railroad mechanical departments, and points the way afresh upon well-known paths of money-saving.

It has, besides, a peculiar interest of its own. It is quite aside from the beaten track of such statistics, even though it remains consistently throughout on the solid ground of fact. Indeed, it is very modest in its claims for the value of careful lagging and jacketing of locomotives or other exposed heated surfaces which are not intended for external heating.

Therefore, back here on the carpet, we follow the

trend of the article a little farther, even at the risk of producing figures which at first sight may seem too good to be true.

Suppose that, for safety's sake, we go quite below the twenty-six per cent for the locomotive and thirty-nine per cent for the preserving-cylinder, as recorded of the tests at Chicago and Las Vegas, and say that a locomotive properly protected with its modern "long suit" will save twenty-five per cent of the coal that a "naked" locomotive would have to use to do an equal amount of work.

Assume, again, that a ton of coal (averaging the country over) costs \$1 delivered onto the tender of the locomotive. That is probably a very safe estimate.

Assume, then, that each locomotive in use on the interstate roads will, for 300 days out of 365, make an actual or constructive mileage of 100 miles a day and use, each day, 10 tons of coal. That is to say, each properly jacketed locomotive will make a total yearly mileage of 30,000, actual or constructive, and its coal bill will be \$3,000. That, also, would be a very low and safe estimate so far as any fear of exaggeration may be considered.

And now for the fireworks!

Since we have taken the unjacketed engine referred to in Mr. Hoffman's article, as the basis of calculation, then the \$3,000 fuel bill of the jacketed engine is only seventy-five per cent of what the naked engine's \$4,000 bill would be, and the jacket stands to save an even \$1,000 per engine, per working year of 300 days, as we have assumed it.

The latest available government report (Interstate Commerce Commission, 23d Report, 1909) gives the total number of locomotives, of all classes, in use by the common carriers on June 30, 1908, as 57,698! Just foot that up, please, at \$1,000 saved per engine, per year. No, don't. We are not going to back away from it. We have come too near to finishing it. We shall foot it up ourselves.

It amounts to \$57,698,000! No. That is not a misprint. Fifty-seven million six hundred and ninety-eight thousand dollars saved yearly in the United States by locomotive jackets, and they are not making a single hiss or sputter about it! Makes the whistle sound silly, doesn't it? But, then, there is no way of telling what the whistle saves, in one way and another, year in and year out!

There it all is! Figure it over for yourselves, and tell us where it is wrong.

HERE'S CLICKETY CLICK.

FOR over a year or more we have received numerous requests from readers in all parts of the country to print in *The Railroad Man's Magazine* the touching poem by Cy Warman, entitled "Clickety Click." The words of this little railroad ballad made a great hit among trainmen from coast to coast at the time of its first appearance, years ago, and that its popularity still lives to-day shows that the merit it contains has not gone unappreciated with the passing of time.

Mr. Warman was kind enough to send us the

verses, a few days ago, with permission to reprint them.

CLICKETY CLICK.

BY CY WARMAN.

CLICKETY click! as out of town

The engine picks her way;
Where bare-foot children, sunburnt brown,
In dusty alleys play.
All the summer, early and late,
And in the autumn drear,
A maiden stands at the orchard gate,
And waves the engineer.

He likes to look at her face so fair,
And her homely country dress;
She likes to look at the man up there
At the front of the fast express.
Clickety click! though miles apart,
To her he is always near,
And she feels the click of her happy heart
For the heart of the engineer.

Over the river and down the dell,
Beside the running stream,
She hears the clang of the engine-bell—
The whistle's startled scream.
Clickety click! An open switch—
Onward the engine flies.
Clickety click! They're in the ditch!
Oh, angels! hide her eyes!

Clickety click, and down the track
The train will dash to-day;
But what of the ribbons of white and black
The engine wears away;
Clickety click! Oh, worlds apart—
The maiden hangs her head.
There is no click in the maiden's heart—
The engineer is dead.



GREATER TERMINALS NEEDED.

JAMES J. HILL, chairman of the board of directors of the Great Northern Railway, prepared a paper dealing with the increasing necessity for greater terminal facilities, which was presented at a meeting of the Northern Association of Millers. In this paper Mr. Hill states that the "pressure upon the existing terminal facilities is a future menace and a present handicap." He says:

"For months it has been impossible to get freight shipments delivered promptly, if these have to be transferred at any of the central markets or principal terminal points.

"The flood of business that rose to such a dangerous height in 1907, is piling up again, with the additions made by national growth since then. The future will add in increasing ratio to these difficulties, as well as to the losses they involve.

"The only probable relief from the pressure on our transportation agencies, and especially on terminals, where the greatest difficulty exists, is the decline of our export trade.

"The demand of the home consumer is lessening the volume of our export of foodstuffs, and will affect similarly some other items on the list.

"But this change will bring relief to the carrier only in so far as export terminals are concerned.

"An enormous volume of new traffic is being de-

veloped by the industrial advance of the country between the Mississippi River and the Pacific coast. All of this must seek its market; and much of it will be added to the total that already overburdens our terminals.

"In the great markets of the eastern half of our country, the crisis has already arrived. Traffic growth and terminal congestion are applying the brakes to business progress. This means trouble for the whole country.

"It is no more disastrous to have the banks close their doors than to have the railroads choked."

"The problem of terminals is the greatest problem of the country, the problem of transportation agencies, of financiers, of the communities directly affected, and of all the industries that depend directly or indirectly upon cheap and speedy carriage for the commodities which they buy and sell."

"It is a problem for everybody, since probably not one business man in the whole country would fail to see the disastrous effects if it were to be neglected for the next five years as it has for the last ten, and to blight the present form of activity by paralyzing the whole trade."

It is not the province of the eagle eye and the con of this train to get mixed up in disputes of any sort, nor do we think that we are equipped to tell the nation how to run itself, or the I. C. C. how to fix rates. But we do believe, in our humble way, that these words of Mr. Hill have no leaks in the joints, and should be read as carefully as an engineer reads his orders, by every American citizen.

ANOTHER OLD ONE.

HERE is another old railroad poem for your scrap-books, boys. It was sent to us by Mr. J. W. Wood, of the Katy, who resides in Dallas, Texas. Sometimes we believe that in the four years since THE RAILROAD MAN'S MAGAZINE was started we have published about every old-time poem worth keeping—but some kind reader kindles our surprise with another. Do *you* know any? Have you an old poem tucked away in your scrap-book or your treasure-box which we have not published? If so, make a copy of it and send it in. Let's get all these good old songs and poems before the public through the columns of The Carpet. The poem sent to us by Mr. Wood is called:

HOW IT WORKS.

"WHAT would you do?" asked the fireman grim,
Of the sooty engineer,
As the latter turned and looked at him
With a patent, self-coupling sneer—
"What would you do if you jumped the track,
With another train in view,
And found you couldn't stop or back—
Then what d'ye s'pose you'd do?"

"Do!" cried the sooty engineer,
With a look of pluck on toast,
"You bet your shovel I'd stay right here,
And perish at my post!"
And the fireman gazed with mute respect
On his chum, and fed the flame,
And wondered, if the train were wrecked,
If he would prove as game.

The engine tore the starless night
Into long, thin shreds of dark,
And marked its headlong, reckless flight
With many a blazing spark;
And the engineer, on his locker perched,
Looked down on his humble friend,
Until on a switch the engine lurched,
And canted end o'er end!

And, there, in the broken, steaming wreck
The luckless fireman lay,
With a badly dislocated neck,
And a general look of decay;
And the passengers gazed upon the smash,
Where the ditch and the engine bumped,
To see the engineer all hash—
But they didn't—he had jumped!

A TECHNICAL BUREAU.

THE formation of a permanent technical bureau composed of active members of the Master Car Builders' Association was discussed at its recent convention. The members of the bureau, it is suggested, are to have a thorough technical training. President Wildin, the father of the idea, suggested that one member of this bureau be a salaried incumbent with a compensation which would permit a man fully equipped through experience and training to accept it. It was suggested that the bureau be given authority to act for the association on all important matters arising between the annual meetings, and that it make a report at the next annual meeting. There is much work that such a bureau could handle to advantage. The development during the past year, particularly in connection with government activity on railroad questions, shows the great necessity for having some organization of this character which can act officially on technical questions for the whole association.

THE LAY OF THE DEAD COW.

WE are indebted to one of our readers, who is connected with the M. and N. A. R. R., for the following poem. He tells us, in his very kind letter, that it was composed by one of the engineers. No names are given, but our correspondent assures us that the author was the man "who saw what was left of the cow."

COLLINS ON NO. 3.

BLACK killed the sheep and Collins the cow;
If you read these lines I will tell you how.
Collins changed the 3 for engine 1,
And said, "Old man, can this engine run?"
The old man said, "Well, I guess some.
Now, on straight track or around a curve,
To hold her open, you haven't the nerve."
So Collins started south on No. 3,
And the fireman was busy as he could be.
A mile south of Moro, out on the line,
Now, remember, Collins was making up time.
While looking ahead, he saw a cow,
And said, "The speed of this engine I will try
now."

So he looked at the fireman and winked his eye,
 And said, "Son, get busy, I am going to try
 To show that cow what she is about;
 She is on my time and no flag out,
 And I tell you, lad, she will have to hump
 If I don't put this engine against her rump."
 The race was short, but the cow died game;
 But you ought to have seen her, behind the train—
 A few crushed bones, an old loose hide,
 So you may guess why this cow died.
 This cow was a scrub, but she is dead,
 And the company will pay for a thoroughbred
 Jersey heifer or a Hereford bull,
 Because the farmers have a pull
 With the lawyers, judge, and the jury, too,
 And a railroad company. They always do
 Get good money and then smile and tell,
 They have another fine cow they wish to sell;
 And will sell it, too, because it is fine,
 The next time Collins comes down the line.

OUR THANKS FOR THIS.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

I HAVE been a consistent reader of THE RAILROAD MAN'S MAGAZINE since its initial appearance, and I wish to state that I have never found anything in this class of literature that ranked anywhere near THE RAILROAD MAN'S.

It is the only periodical that I can read with the same untiring interest from cover to cover, and the only one that tells railroad stories in railroad style, and is thoroughly appreciated by railroad men.

The true story series is a feature that is worth the price alone, while "By the Light of the Lantern" department is enjoyed by every one from the master mechanic to the humblest grease-wiper. The "Observations of a Country Station-Agent" is O. K., and the pen pictures of Emmet F. Harte would chase the frowns from the most dignified official of any railway system in the country.

C. R. HOWTON,
 Thomas, Alabama.

AGAINST THE PHONE.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

NOT wishing to place ourselves in the large columns, we want to say that when THE RAILROAD MAN'S MAGAZINE comes around, it is like shaking hands with some of the old boys we knew in former days.

Let them come same as ever. There's always a feed and a place to kip, and the lake is fine.

No hard feelings, but please try to cut out the "gag" on the telephone business, because an "opr" is at 150 par this date. Any of the boys write. 73 to all.

"BLOND JACK," H. W. TAYLOR, "AY," and E. B. TAYLOR, U. S. Signal Corps, 1900. "YN."

RECORD FOR REPAIRING ENGINES.

IN repairing locomotives the Lehigh Valley shops at Sayre, Pennsylvania, recently established a new time record. For the seven months from September 30, 1909, to May 1, 1910, one repaired locomotive was turned out every three and a half work-

ing hours. The Lehigh Valley repair-shops at Sayre are the largest under one roof in the United States. The force of employees includes one thousand men who work on locomotives alone, four hundred and fifty on freight-cars, and one hundred and fifty on passenger-cars. The whole plant covers fifty-seven acres.

TO PREVENT RAILROAD ACCIDENTS.

THE Chicago and Northwestern Railway has taken a step in the right direction by appointing an official whose chief duty is to make a study of railway accidents, and by a system of education and strict enforcement of discipline, endeavor to eliminate the most fruitful cause of injuries to passengers and damages to freight. Opportunity was recently taken of the reorganization of the company's claim department, says the *Scientific American*, to relieve the claim-agent of much of the detail of his work, and allow him to make a careful study of the causes of all accidents in the handling of passengers and freight. It will be his duty to bring about a more thorough cooperation and a higher state of discipline among the various employees, upon whose fulfillment of their duties the safe operation of the trains, immediately depends.

The scheme is a most excellent one, and we believe that its results will be so satisfactory as to lead to similar arrangements on at least the more important railroads of the country.

AT THE END OF THE WIRE.

A GOOD friend sends the following poem for The Carpet. It sizes up the joys and troubles of a despatcher's office just about right, doesn't it? How many of you have had such experiences as this:

IN A DESPATCHER'S OFFICE.

BY CHARLES W. BILLMAN.

THE train-despatcher's office, you all are aware,
 The operation of railroading comes under its care.
 'Tis an office which never is allowed to close,
 Midnight to midnight, as the year around goes.

They arrange the make-up of a train,
 Advise when and where a crew gets same,
 Supplies cars to points issuing requisition,
 And has the authority in furnishing disposition.

The train-despatcher, from a certain point of view,
 Deserves great credit and all that is due.
 He must be exact and accurate where responsibility lies,
 And be able to answer any question that may arise.

To insure safety, the train-despatcher must
 Assume great responsibility, hope, and trust,
 In his ability to protect and guide
 The movements of trains, the schedules he provides.

Serious incidents, in many instances, every day,
 Will cause some trains more or less delay,
 Especially on single track, where advantages lack
 Those of on double, where they run opposite track.

From various points out over the line,
Reports of trains, both late and on time.
First, second, third class, local, and through,
As well work-trains, specials, and extras, too.

The B. & O. reports two sections on 94,
546 late, about three hours or more.
What's to be done with the emigrant crew?
Only one on 512, no D. H. equipment for you.

690 has perished and a lot of stock,
Feed and water limit expires at four o'clock.
To get this train through without delay,
The train-despatcher must some figuring display,

Extra 692, with an important train,
Standing still on the eastbound main.
To clear per diem, they must clear track
For following trains that got up in back.

C. & E. extra 692 from "S F" wires:
"Can go no farther, must draw fire.
Please advise what we shall do,
Oh, you, Mr. Despatcher, it's up to you."

To conductor, extra double-header, "G U,"
Reduce train 700 tons and go through.
Engine 461 fix fire, have tank full,
Return from "X G" for another pull.

L. V. advises two on No. 8,
First regular train one hour late.
Second, close with 200 or more
Passengers for Atlantic City from Lake Shore.

Extra 561 south, by 10.23,
Reports the signalman from "S D,"
Has a hot-box, second car from hack,
Sparks flying bad all over track.

To operator, "B G," m's'g for 79,
Give cause of delay and poor time.
Replies the conductor: "Hung up on hill,
Train parted twice and pulled out end-sill."

"Where is the pusher?" asks "O D."
"Two coal-trains are ahead 'P. B.-3';
Yard is tied up until they clear;
Buck cannot work or move cars from here."

To "S N," east copy 7,
Engines 1505, 1506, and 911
Will run extra "S N" to "O D"
Ahead of train No. 133.

The numerous trials a Despatcher must undergo,
Occur momentarily, as his records will show.
The few instances above all will require
Practical experience at the end of a train wire.

Philadelphia and Reading Railroad Men.

PERCENTAGE OF LOCOMOTIVES.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

IN the August number of THE RAILROAD MAN'S MAGAZINE, page 420, "E. R." of Parsons, Kansas, asks: "What is meant by the percentage of a locomotive?" which question you were unable to answer.

The only way in which I have known the word

percentage to be used in connection with locomotives was in reference to their hauling capacity or tractive power. Some roads term their most powerful locomotives 100-per-cent engines, and the smaller ones are rated in proportion. For instance, if the 100-per-cent engine has a tractive power of 40,000 pounds, one having a tractive power of 30,000 pounds would be a 75-per-cent engine, and so on.

The New York Central lines base their locomotive hauling capacity percentages on 100,000 pounds. They have, of course, no locomotive having such high tractive power, but this system is much simpler than the other; an engine having 50,000 pounds tractive power being a 50-per-cent engine; one having 32,000 pounds being a 32-per-cent engine, and so on.

These percentages are all entered in the locomotive classification book, opposite the number of each engine, so that even an inexperienced person can see at a glance the relative hauling capacities of all the locomotives on the system, and the approximate tractive power of each locomotive.

C. D. WRIGHT,
Cleveland, Ohio.

FASTEST THING ON WHEELS.

IN our July number, we published an item from *The Engineering Record*, stating that the fastest mile on record was made by Barney Oldfield in the automobile "Lightning Benz," at Daytona, Florida, March 16, last. The figure touched by Mr. Oldfield was 131.72 miles per hour, a measured mile being covered in 27.33 seconds.

We received a great many communications regarding this burst of speed, many claiming that the writer was mistaken—that faster miles had been made. One of the most interesting of these communications is from the *Kansas City Star*, and we publish it herewith:

In a recent issue of the *Star* I read an item in which it was said that a mile in 29 seconds, made by a motor-car, was the fastest ever traveled by a human being. An incident in which a locomotive greatly exceeded this speed came under my notice many years ago. It may be interesting.

In 1883 I was station-agent at Bonfield, Illinois, on a branch of the Big Four Railway. Two passenger-trains met there daily at 1.10 P.M., that going east having the right-of-way. Kankakee was the next station east of me, eleven miles away. If the west-bound train was a bit late it was customary for the despatcher to give it a "time-order" against the east-bound train to reach Bonfield.

Billy Campbell was running the "52" one day on the west-bound passenger—a big engine with 80-inch drivers—and almost invariably when he had that train he was late, and invariably he had to ask for "help" to reach Bonfield, to meet the east-bound train. Finally, the despatcher tired of it, and on this particular day inquired of Conductor Lester, at Kankakee, why he couldn't make his thirty-miles-an-hour schedule.

"Tell him," Lester replied, "that Campbell is our engineer." Now, it chanced that Campbell, oiling his engine, heard this answer, and it angered him so that he hopped aboard the "52," Lester caught the rear car, and, before the despatcher could send the usual time-order, the train had gone.

The Illinois Central crossing was a quarter of a mile from Kankakee; a half-mile farther on was another dead stop for the draw-bridge over the Kankakee River; then came three miles up-grade out of the Kankakee River Valley, and then eight miles of straight track down a slope of twenty feet to the mile into Bonfield—and just ten minutes for the “52” to make it.

Allowing three minutes for the two dead stops, seven minutes remained for the eleven miles. When we, at Bonfield, saw Campbell's smoke as he came over the summit of the grade, he had exactly three and one-half minutes left for the eight miles straight-away.

Campbell probably was running seventy-five miles an hour then; the train was swaying; the passengers, as we afterward heard, were clinging to the seats in fright. The landscape, they said, was only a blur.

About a mile and a half from Bonfield Campbell shut off steam, closed his throttle, and rolled into the station ten seconds ahead of time. He had made the eight miles in 3 minutes and 20 seconds, not allowing anything for the time lost in coming to a stop. It was figured that he must have covered some miles in 21 or 22 seconds.

Was it possible for an engine to do that? I rely on the train-sheet figures as they were reported. And I know that when the train stopped Conductor Lester went forward and told Campbell that if he ever did such a thing again, with him aboard, he'd shoot him.

AN OLD STATION-AGENT,
Curlew, Washington.

SEVENTEEN BILLIONS IN RAILROADS.

IN spite of those who are still moaning about hard times and more panics, the railroads are forging ahead at a rate that tells an entirely different story. More figures showing the ever-increasing golden hoard represented by the railroads of this country were recently made public by the Interstate Commerce Commission, disclosing the fact, that on June 30, 1909, the face value of the amount of railway capital outstanding was \$17,487,868,935. Of this amount \$13,711,867,733 was in the hands of the public.

Of the total capital outstanding, there existed as stock \$7,686,278,545, of which \$6,218,382,485 was common, and \$1,467,896,060 was preferred; the remaining part, \$9,801,590,390, represented funded debt, consisting of mortgage bonds, \$6,942,012,066; collateral trust bonds, \$1,147,377,191; plain bonds, debentures, and notes, \$803,537,301; income bonds, \$284,497,531; miscellaneous obligations, \$316,297,240, and equipment trust obligations, \$307,869,061.

Of the total capital stock outstanding, \$2,766,104,427, or 35.99 per cent, paid no dividends. The amount of dividends declared during the year was \$321,071,626, being equivalent to 6.53 per cent on dividend-paying stocks. No interest was paid on \$718,351,332, or 7.57 per cent of the total amount of funded debt outstanding, omitting equipment trust obligations.

The total number of persons reported as on the pay-rolls of the steam roads of the United States on June 30, 1909, was 1,502,823, or an average of 638

per 100 miles of line. As compared with returns for June 30, 1908, there was an increase of 66,548 in the total number of railway employees. There were 57,077 enginemen, 60,349 firemen, 43,608 conductors, 114,760, other trainmen, and 44,698 switch-tenders, crossing-tenders, and watchmen. The total amount of wages and salaries reported as paid to railway employees during the year was \$988,323,694.

The summaries show that on June 30, 1909, there was a total single-track railway mileage in the United States of 236,868.53, indicating an increase of 3,215.18 miles over the corresponding mileage at the close of the previous year. Substantially complete returns were rendered to the commission for 235,402.09 miles of line operated, including 9,396.35 miles used under trackage rights. The aggregate mileage of railway tracks of all kinds covered by operating returns was 342,351.24.

During the year railway companies owning 2,706.56 miles of line were reorganized, merged, or consolidated.

SPEED IN THE SOUTH.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

SINCE the first number of the best magazine on railroading published in the United States—THE RAILROAD MAN'S MAGAZINE—appeared, I have read each issue from the pilot to the markers on the dog-house. Each number is better than the preceding one, and if the good things increase as they have heretofore, it will take a bimonthly issue to get it all in.

Articles on speed records have held my greatest interest, and a number with such articles is put with a separate file to refer to at odd times. In all these articles, I cannot recall to mind just at the moment whether there has ever been anything about speed-records in the South. Trains in this part of the world are conceded to be slow; but, with permission, I would like to present a few records.

The old Plant System, which was dealt with some months ago in an article about the founder of the line, Henry Bradford Plant, holds the world's record for short-distance speed. In March, 1901, an extra, pulled by a 19-inch ten-wheeler, built by the Rhode Island Locomotive Works, made the run from Fleming to Jacksonville, Florida, a distance of five miles, in the short time of two minutes and thirty seconds, flat—a speed of 120 miles an hour. Several of these engines are still in service between Jacksonville and Waycross and Savannah, Georgia, changed to Atlantic Coast Line, and numbered from 200 to 210, inclusive. How many cars were in the train at the time the run took place, I cannot say, but it is improbable that there were more than three.

Then, again, in 1894, the Plant System and the Atlantic Coast Line, jointly handled a train from Jacksonville to Richmond, Virginia, a distance of 661.5 miles, in 12 hours and 51 minutes, at an average speed of 51.48. Considering the conditions to be met with in Southern railroading, this run was remarkable, as also was the run made in March, 1903, from Jacksonville to Savannah, 172 miles, in 2 hours and 32 minutes, by the Atlantic Coast Line, with the old Plant System's equipment. The speed for this run was made at an average of 70.7 miles an hour.—D. V. H., Tampa, Florida.

Soon housewives will know



"Two Methods and a Moral."

The woman who escapes from the tyranny and drudgery of old-fashioned, insanitary heating methods to that of cleanly, automatic heating is surely open to congratulations. Too many housekeepers are chained to brooms, dust-pans, and back-

breaking coal hods because of the relentless slavery to stoves and hot air furnaces. There's a way out—

AMERICAN & IDEAL RADIATORS & BOILERS

are the only means of warming a house without adding to the labor of its care. These outfits of IDEAL Boilers and AMERICAN Radiators are absolutely clean, will outlast the building itself; and the fuel and labor

savings soon repay their cost, and thereafter prove to be big profit-makers. Step into any sky-scraper office building or fine store and you will see they are equipped with our outfits—the name of our Company you will find cast on the end of each radiator. It is an evidence of the high quality of our goods, also significant of the fact that men would not put up in their places of business with the annoying heating methods that their wives patiently endure.

To continue to use old-fashioned heating reflects upon the housewife—robs her of the few hours per day which she should be able to devote to better things. Buy an outfit of IDEAL Boilers and AMERICAN Radiators and like thousands of others who have bought, you will joyfully pass the good word along. Don't wait to build a new home or until another Winter. Put comfort into your present house—now done without tearing up, or disturbing old heaters until ready to put fire in the IDEAL Boiler. Write us today for catalogue, "Ideal Heating Investments."



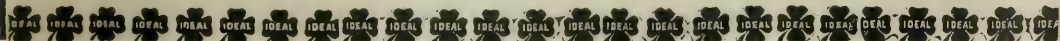
A No. 4121 IDEAL Boiler and 420 ft. of 38-in. AMERICAN Radiators, costing the owner \$190, were used to Hot-Water heat this cottage.

At these prices the goods can be bought of any reputable, competent Fitter. This did not include cost of labor, pipe, valves, freight, etc., which installation is extra and varies according to climatic and other conditions.

Showrooms in all
large cities

AMERICAN RADIATOR COMPANY

Write to Dept. J
Chicago



Velvet

THE SMOOTHEST TOBACCO

Velvet does not rely upon the blender's skill to make it delicious. The mild, mellow, nut-like taste is given it by nature. It is just straight Burley leaf,—the best we can buy—made up into as fine a smoke as you could wish.

It does not burn the tongue or dry the throat. One trial will convince you of its superiority.

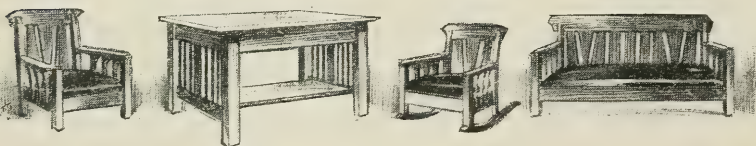
Full Flavored and Fragrant
AT ALL DEALERS
10 Cents

Packed in a neat metal case that just fits the hip pocket. Also in 8 and 16 oz. canisters with humidor tops, which keep the tobacco moist and are an ornament to any smoker's den.

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Chicago, Ill.



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17 Jewel Elgin—Our Great Special \$13.75
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We sell suits from **\$2 to \$10** cheaper than anybody else on earth. You can undersell all others. Our agent (Ohio) made **\$75** first week, another (Texas) **\$33.50** in 3 days, another (Kas.) **\$15.50** the first day. They did not set foot out of their own towns to do it.

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a Pair

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Canadian Manufacturers: Imperial Glove Co., Ltd., Hamilton, Ont.

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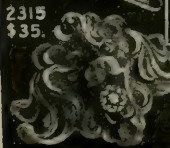
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\$25



2132
\$60



2315
\$35

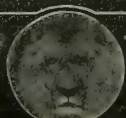


2110
\$35

2158 \$30



\$60
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Refuse Imitations.

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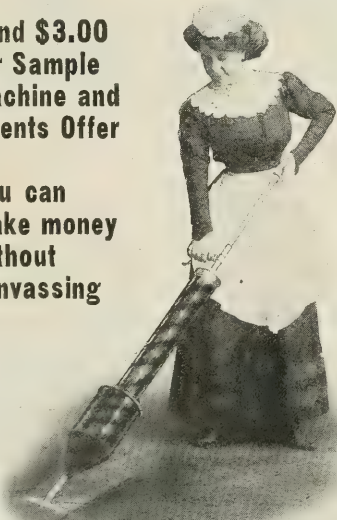
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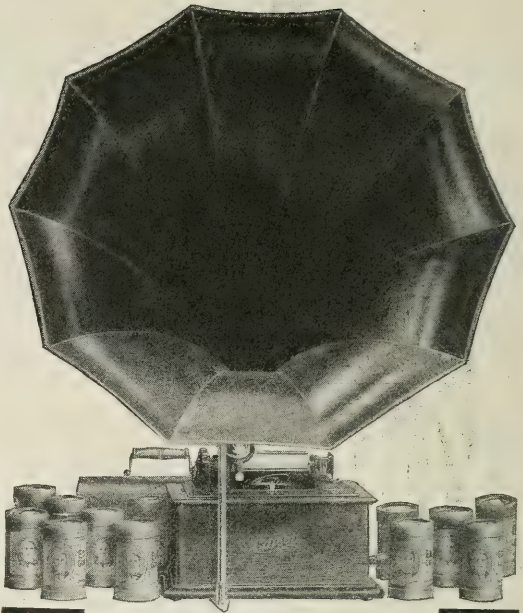
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Write for territory today. Biggest seller ever invented. No experience necessary. Edw. McGough, O., says: **"Made \$160.00 last week. Easiest thing in the world. Everybody buys."** E. J. Ditr, Michigan, **No trick at all—just** writes: **"Eighteen orders one day—profit \$22.50."** **show and take the order."** **New Chemical fire extinguisher.** Absolutely guaranteed. Always ready. Acts instantly. Even a child can use it. **Death to any fire.** A marvel of science. Sells itself. No talking necessary. We want you to be our agent in your territory. **You can make \$4000.00 this year.** But don't delay. **Investigate.**

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**\$50.00 Weekly!
Profit!**

This is what hundreds of our operators are earning. This is what you can easily earn, making photo buttons with the

Wonder Cannon Camera

A big, pleasant profitable business at fairs, picnics, carnivals, on street corners, in fact everywhere where people gather.

**Positively No
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So hard they can't be filed and will cut glass. Brilliance guaranteed 25 years. All mounted in 14K solid gold diamond mountings. Will send you any style ring, pin or stud on approval—all charges prepaid—no money in advance.

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What is life going to mean to you? Is it going to mean comfort and prosperity, or is lack of training going to condemn you to hard labor for the rest of your days?

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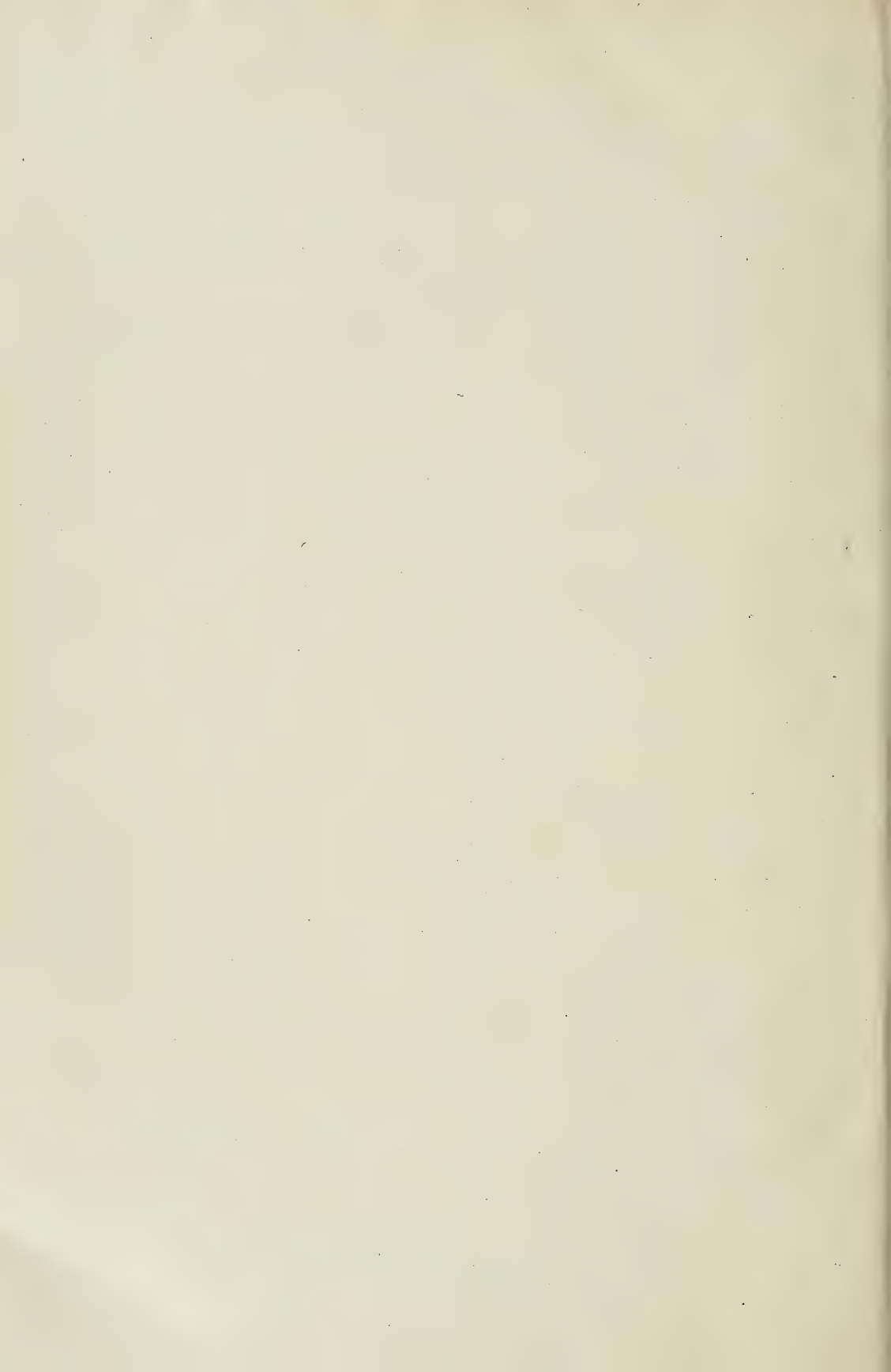
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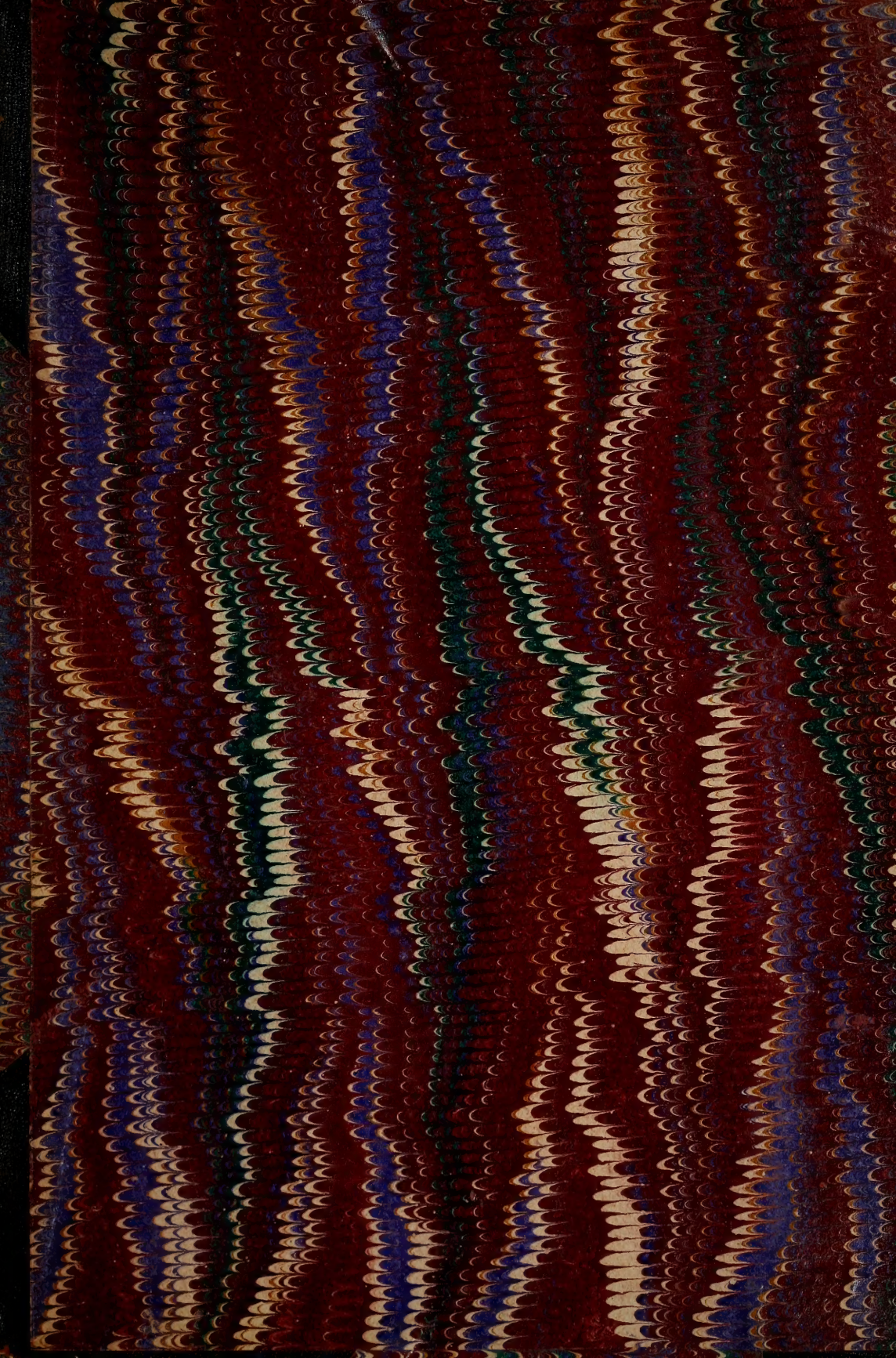
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